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FILE COVERS 1907 - 27 Apr 2007  VOL 146 ISS 19
FILE LAST UPDATED: 26 Apr 2007  (20070426/ED)

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 This file contains CAS Registry Numbers for easy and accurate
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'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> D QUE L39
L2             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  DIPHENYLSILANE/CN
L3            82 SEA FILE=REGISTRY ABB=ON  PLU=ON  775-12-2/CRN
L8             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  DIPHENYLCHLOROSILANE/CN
L17            9 SEA FILE=REGISTRY ABB=ON  PLU=ON  75-79-6/RN OR 75-94-5/RN OR
                   98-13-5/RN OR 100-59-4/RN OR 149-74-6/RN OR 80-10-4/RN OR
                   144-79-6/RN OR   1631-84-1/RN OR  7719-02-0/RN
L18         1805 SEA FILE=REGISTRY ABB=ON  PLU=ON  (100-59-4/CRN OR 144-79-6/CRN
                    OR 149-74-6/CRN OR 1631-84-1/CRN OR 75-79-6/CRN OR 75-94-5/CRN
                    OR 7719-02-0/CRN OR 80-10-4/CRN OR 98-13-5/CRN)
L28         1134 SEA FILE=HCAPLUS ABB=ON  PLU=ON  NGUYEN B?/AU
L29            6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BEDBURY C?/AU
L30            2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HUMBURG R?/AU
L31          655 SEA FILE=HCAPLUS ABB=ON  PLU=ON  JACOB S?/AU
L32           12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  RATCLIFF S?/AU
L33          108 SEA FILE=HCAPLUS ABB=ON  PLU=ON  WATERMAN J?/AU
L34           17 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L28 OR L29 OR L30 OR L31 OR
                   L32 OR L33) AND (L17 OR L18 OR L2 OR L3 OR L8)
L35           12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L34 AND P/DT
L36            9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L35 AND (PY<=2004 OR AY<=2004
                   OR PRY<=2004)
L37            5 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L34 NOT L35
L38            4 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L37 AND PY<=2004
L39           13 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L36 OR L38)


=> FILE WPIX
FILE 'WPIX' ENTERED AT 18:18:05 ON 27 APR 2007
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FILE LAST UPDATED:                          26 APR 2007   <20070426/UP>
MOST RECENT THOMSON SCIENTIFIC UPDATE:     200727       <200727/DW>
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http://www.stn-international.de/stndatabases/details/dwpi_r.html <<<
'BI,ABEX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE

=> D QUE L48
L28         1134 SEA FILE=HCAPLUS ABB=ON  PLU=ON  NGUYEN B?/AU
L29            6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BEDBURY C?/AU
L30            2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  HUMBURG R?/AU
L31          655 SEA FILE=HCAPLUS ABB=ON  PLU=ON  JACOB S?/AU
L32           12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  RATCLIFF S?/AU
L33          108 SEA FILE=HCAPLUS ABB=ON  PLU=ON  WATERMAN J?/AU
L46         3925 SEA FILE=WPIX ABB=ON  PLU=ON  GRIGNARD/BI,ABEX
L47          609 SEA FILE=WPIX ABB=ON  PLU=ON  (L28 OR L29 OR L30 OR L31 OR L32
                 OR L33)
L48           10 SEA FILE=WPIX ABB=ON  PLU=ON  L47 AND L46


=> DUP REM L48 L39
FILE 'WPIX' ENTERED AT 18:18:29 ON 27 APR 2007
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PROCESSING COMPLETED FOR L48
PROCESSING COMPLETED FOR L39
L75           18 DUP REM L48 L39 (5 DUPLICATES REMOVED)
                 ANSWERS '1-10' FROM FILE WPIX
                 ANSWERS '11-18' FROM FILE HCAPLUS

=> D IALL ABEQ TECH HITSTR 1-10; D IBIB ED ABS HITSTR 11-18
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L75 ANSWER 1 OF 18 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
DUPLICATE 1

ACCESSION NUMBER: 2005-582317 [59] WPIX
DOC. NO. CPI: C2005-175640 [59]
TITLE: Preparation of diphenylchlorosilanes comprises contacting phenyl **Grignard** reagent, ether solvent, aromatic halogenated coupling solvent, and trichlorosilane in specific mole ratios
DERWENT CLASS: E11
INVENTOR: **NGUYEN B T; NGUYEN B**
PATENT ASSIGNEE: (DOWO-C) DOW CORNING CORP; (NGUY-I) NGUYEN B T
COUNTRY COUNT: 107

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2005068476	A1	20050728	(200559)*	EN	15[0]	
EP 1701965	A1	20060920	(200662)	EN		
US 20070066840	A1	20070322	(200723)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2005068476	A1	WO 2004-US43006	20041217
EP 1701965	A1	EP 2004-815122	20041217
EP 1701965	A1	WO 2004-US43006	20041217
US 20070066840	A1 Provisional	US 2004-534442P	20040106
US 20070066840	A1	WO 2004-US43006	20041217
US 20070066840	A1	US 2006-585155	20060629

FILING DETAILS:

PATENT NO	KIND		PATENT NO	
EP 1701965	A1	Based on	WO 2005068476	A

PRIORITY APPLN. INFO: US 2004-534442P 20040106
US 2006-585155 20060629

INT. PATENT CLASSIF.:
IPC ORIGINAL: C07F0007-00 [I,C]; C07F0007-12 [I,A]; C07F0007-00 [I,C]; C07F0007-04 [I,A]; C07F0007-08 [I,A]; C07F0007-10 [I,A]
IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-12 [I,A]

BASIC ABSTRACT:

WO 2005068476 A1 UPAB: 20051223

NOVELTY - Preparation of diphenylchlorosilanes by **Grignard** process, comprises contacting a phenyl **Grignard** reagent, ether solvent, aromatic halogenated coupling solvent, and trichlorosilane, where the mole ratio of ether solvent to phenyl **Grignard** reagent is 2-5, the mole ratio of aromatic halogenated coupling solvent to phenyl **Grignard** reagent is 3-7, and the mole ratio of trichlorosilane to phenyl **Grignard** reagent is 0.1-10.

USE - For preparing diphenylchlorosilanes.

ADVANTAGE - The yield of diphenylchlorosilanes as product is maximized, while the yield of phenylchlorosilanes as a product is minimized.

MANUAL CODE: CPI: E05-E01C

TECH

ORGANIC CHEMISTRY - Preferred Components: The phenyl **Grignard** reagent is phenyl magnesium chloride. The ether solvent is a dialkyl ether consisting of dimethyl ether, diethyl ether, ethylmethyl ether,

n-butylmethyl ether, n-butylethyl ether, di-n-butyl ether, di-isobutyl ether, isobutylmethyl ether, or isobutylethyl ether. The aromatic halogenated coupling solvent is chlorobenzene. The trichlorosilane is methyltrichlorosilane, phenyltrichlorosilane, or vinyltrichlorosilane.

L75 ANSWER 2 OF 18 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
DUPLICATE 2
ACCESSION NUMBER: 2005-582316 [59] WPIX
DOC. NO. CPI: C2005-175639 [59]
TITLE: Preparation of diphenylchlorosilanes comprises contacting phenyl **Grignard** reagent, ether solvent, trichlorosilane, and aromatic hydrocarbon coupling solvent in specific mole ratios
DERWENT CLASS: E11
INVENTOR: **BEDBURY C J; HUMBURG R E; JACOB S M; NGUYEN B T; RATCLIFF S J; WATERMAN J D; BEDBURY C; HUMBURG R; JACOB S; NGUYEN B; RATCLIFF S; WATERMAN J**
PATENT ASSIGNEE: (DOWO-C) DOW CORNING CORP; (BEDB-I) BEDBURY C J; (HUMB-I) HUMBURG R E; (JACO-I) JACOB S M; (NGUY-I) NGUYEN B T; (RATC-I) RATCLIFF S J; (WATE-I) WATERMAN J D
COUNTRY COUNT: 107

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2005068475	A1	20050728	(200559)*	EN	19[0]	
EP 1701964	A1	20060920	(200662)	EN		
US 20070066826	A1	20070322	(200723)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2005068475	A1	WO 2004-US43005	20041217
EP 1701964	A1	EP 2004-815121	20041217
EP 1701964	A1	WO 2004-US43005	20041217
US 20070066826	A1 Provisional	US 2004-534443P	20040106
US 20070066826	A1	WO 2004-US43005	20041217
US 20070066826	A1	US 2006-585154	20060629

FILING DETAILS:

PATENT NO	KIND		PATENT NO
EP 1701964	A1	Based on	WO 2005068475 A

PRIORITY APPLN. INFO: US 2004-534443P 20040106
US 2006-585154 20060629
INT. PATENT CLASSIF.:
IPC ORIGINAL: C07F0007-00 [I,C]; C07F0007-12 [I,A]; C07F0007-00 [I,C]; C07F0007-02 [I,A]; C07F0007-08 [I,A]
IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-12 [I,A]
BASIC ABSTRACT:
WO 2005068475 A1 UPAB: 20051223
NOVELTY - Preparation of diphenylchlorosilanes by **Grignard** process, comprises contacting a phenyl **Grignard** reagent, ether solvent,

trichlorosilane, and aromatic hydrocarbon coupling solvent, where the mole ratio of ether solvent to phenyl **Grignard** reagent is 2-5.

DETAILED DESCRIPTION - Preparation of diphenylchlorosilanes by **Grignard** process, comprises contacting a phenyl **Grignard** reagent, ether solvent, trichlorosilane, and aromatic hydrocarbon coupling solvent, where the mole ratio of ether solvent to phenyl **Grignard** reagent is 2-5.

The mole ratio of trichlorosilane to phenyl **Grignard** reagent is 0.1-10, and the mole ratio of aromatic coupling solvent to phenyl **Grignard** reagent is 3-7.

INDEPENDENT CLAIMS are also claimed for processes for preparation of phenylchlorosilanes by the **Grignard** process.

USE - For preparing diphenylchlorosilanes.

ADVANTAGE - The yield of diphenylchlorosilanes as product is maximized, while the yield of phenylchlorosilanes as a product is minimized.

MANUAL CODE: CPI: E05-E01C; E11-H

TECH

ORGANIC CHEMISTRY - Preferred Components: The phenyl **Grignard** reagent is phenyl magnesium chloride. The ether solvent is a dialkyl ether consisting of dimethyl ether, diethyl ether, ethylmethyl ether, n-butylmethyl ether, n-butylethyl ether, di-n-butyl ether, di-isobutyl ether, isobutylmethyl ether, or isobutylethyl ether. The aromatic solvent is toluene. The trichlorosilane is methyltrichlorosilane, phenyltrichlorosilane, or vinyltrichlorosilane.
The phenylchlorosilane is selected from phenylmethyldichlorosilane, phenyltrichlorosialne,
diphenyldichlorosilane, phenylvinyldichlorosilane and hydridophenyldichlorosilane.
Preferred Process: The process comprises contacting a phenyl **Grignard** reagent, an ether solvnt, a phenylchlorosilane, and an aromatic hydrocarbon coupling solvent, where the mole ration of the ether solvent to the phenyl **Grignard** reagent is 2-5, the moel ratio of the phenylchlorosilane to the phenyl **Grignard** reagent is 0.5 - 5, and the mole ratio of the aromatic coupling solvent to the phenyl **Grignard** reagent is 3-7.

L75 ANSWER 3 OF 18 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
DUPLICATE 3

ACCESSION NUMBER: 2004-010115 [01] WPIX
DOC. NO. CPI: C2004-002848 [01]
TITLE: Preparation of phenyl-containing organosilicon intermediates involves reacting phenyl **Grignard** reagent with precursor chlorosilane in the presence of mixture of dialkyl ether solvent and aromatic halogenated solvent
DERWENT CLASS: E11
INVENTOR: **BEDBURY C J**; CANNADY J P; **NGUYEN B T**
PATENT ASSIGNEE: (BEDB-I) BEDBURY C J; (CANN-I) CANNADY J P; (DOWO-C) DOW CORNING CORP; (NGUY-I) NGUYEN B T
COUNTRY COUNT: 97

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 20030191238	A1	20031009	(200401)*	EN	5[0]	
WO 2003084970	A1	20031016	(200401)	EN		
AU 2003226138	A1	20031020	(200436)	EN		
EP 1495032	A1	20050112	(200504)	EN		
KR 2004111481	A	20041231	(200528)	KO		
JP 2005521747	W	20050721	(200549)	JA	14	

CN 1656105	A	20050817 (200572)	ZH
IN 2004000556	P3	20050624 (200572)	EN
US 7084206	B2	20060801 (200650)	EN

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 20030191238	A1	US 2002-117259	20020404
AU 2003226138	A1	AU 2003-226138	20030328
CN 1656105	A	CN 2003-811628	20030328
EP 1495032	A1	EP 2003-746076	20030328
JP 2005521747	W	JP 2003-582167	20030328
WO 2003084970	A1	WO 2003-US9696	20030328
EP 1495032	A1	WO 2003-US9696	20030328
JP 2005521747	W	WO 2003-US9696	20030328
IN 2004000556	P3	WO 2003-US9696	20030328
KR 2004111481	A	KR 2004-715815	20041004
IN 2004000556	P3	IN 2004-MN556	20041006

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2003226138	A1	Based on	WO 2003084970 A
EP 1495032	A1	Based on	WO 2003084970 A
JP 2005521747	W	Based on	WO 2003084970 A

PRIORITY APPLN. INFO: US 2002-117259 20020404
INT. PATENT CLASSIF.:
MAIN: C07C007-08; C07F007-08; C07F007-12
IPC ORIGINAL: C08L0083-00 [I,A]
IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-12 [I,A]
BASIC ABSTRACT:

US 20030191238 A1 UPAB: 20060120

NOVELTY - Phenyl-containing organosilicon intermediates are prepared by reacting a phenyl-containing **Grignard** reagent with a precursor chlorosilane in the presence of a solvent comprising a mixture of a dialkyl ether solvent and an aromatic halogenated solvent and a mixture of a mixture of dialkyl ether solvents and an aromatic halogenated solvent.

DETAILED DESCRIPTION - Preparation of phenyl-containing organosilicon intermediates involves contacting a phenyl-containing **Grignard** reagent with a precursor chlorosilane of formula (I), and allowing the reagent to react with the chlorosilane to form phenyl-containing organosilicon intermediate. The reaction is carried out in the presence of a solvent comprising a mixture of a dialkyl ether solvent and an aromatic halogenated solvent or a mixture of a mixture of dialkyl ether solvents and an aromatic halogenated solvent.

$RaSiX_{4-a}$ (I)

R = phenyl, vinyl, methyl, or hydrogen;

X = Cl or Br;

a = 0-2.

USE - For preparing phenyl-containing organosilicon intermediates.

ADVANTAGE - The invention provides very low viscosity slurries from which magnesium chloride can be separated easily and completely, allows reduction of the total amount of solvent required for the reaction compared to prior art methods, and does not require an initiator for the reaction. It also results in higher yields of purer organosilicon intermediates. Relatively low reaction temperatures may be used. MANUAL CODE: CPI: E05-E01; E11-H

TECH

ORGANIC CHEMISTRY - Preferred Process: The process is carried out at 0-200

degreesC and at ambient pressure to 200 psig and in an inert atmosphere, preferably nitrogen. The intermediate can be prepared by reacting phenylhalide (where halide is chlorine or bromine), chlorosilane, and a co-solvent from a mixture of a dialkyl ether solvent and an aromatic halogenated solvent, or a mixture of a mixture of dialkyl ether solvents and an aromatic halogenated solvent. The solvent and dialkyl ether solvent are cycled back to a **Grignard** reactor. The process is continuous.

Preferred Ratio: The ratio of aromatic halogenated to the dialkyl ether solvent is 0.2:2-0.5:2.

Preferred Components: The dialkyl ether is diethyl ether. The co-solvent is chlorobenzene. The precursor chlorosilane is silicon tetrachloride, methyltrichlorosilane, dimethyldichlorosilane, phenylmethyldichlorosilane, phenyltrichlorosilane, diphenylchlorosilane, vinyltrichlorosilane, hydridotrichlorosilane, divinyldichlorosilane, methylvinyldichlorosilane, phenylvinyldichlorosilane, hydridomethyldichlorosilane, hydridophenyldichlorosilane, hydridovinyldichlorosilane, or dihydridodichlorosilane.

L75 ANSWER 4 OF 18 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
DUPLICATE 4

ACCESSION NUMBER: 2003-655609 [62] WPIX
DOC. NO. CPI: C2003-179193 [62]
TITLE: Preparation of phenyl-containing **Grignard** reagents for phenylchlorosilane intermediates, by contacting magnesium metal with phenylhalide in the presence of co-solvent having mixture of dialkyl ether and toluene
DERWENT CLASS: A41; E19
INVENTOR: **BEDBURY C J**; CANNADY J P; **NGUYEN B T**
PATENT ASSIGNEE: (DOWO-C) DOW CORNING CORP
COUNTRY COUNT: 98

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 6541651	B1	20030401	(200362)*	EN	4[0]	
WO 2003084967	A1	20031016	(200378)	EN		
AU 2003223378	A1	20031020	(200436)	EN		
EP 1490376	A1	20041229	(200502)	EN		
KR 2004097275	A	20041117	(200522)	KO		
JP 2005521745	W	20050721	(200549)	JA	14	
CN 1656103	A	20050817	(200572)	ZH		
IN 2004000555	P3	20050624	(200572)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6541651	B1	US 2002-116885	20020404
AU 2003223378	A1	AU 2003-223378	20030328
CN 1656103	A	CN 2003-811629	20030328
EP 1490376	A1	EP 2003-719498	20030328
JP 2005521745	W	JP 2003-582164	20030328
WO 2003084967	A1	WO 2003-US9540	20030328
EP 1490376	A1	WO 2003-US9540	20030328
JP 2005521745	W	WO 2003-US9540	20030328
IN 2004000555	P3	WO 2003-US9540	20030328
KR 2004097275	A	KR 2004-715779	20041004

IN 2004000555 P3 IN 2004-MN555 20041006

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003223378 A1	Based on	WO 2003084967 A
EP 1490376 A1	Based on	WO 2003084967 A
JP 2005521745 W	Based on	WO 2003084967 A

PRIORITY APPLN. INFO: US 2002-116885 20020404
INT. PATENT CLASSIF.:
MAIN: C07F003-02; C07F007-08
IPC RECLASSIF.: C07F0003-00 [I,C]; C07F0003-02 [I,A]; C07F0007-00 [I,C]; C07F0007-12 [I,A]

BASIC ABSTRACT:
US 6541651 B1 UPAB: 20060120

NOVELTY - Phenyl-containing **Grignard** reagents are prepared by contacting magnesium metal with a phenylhalide in the presence of a co-solvent comprising a mixture of dialkyl ether and toluene.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a process for the preparation of a phenylchlorosilane comprising contacting magnesium metal with a mixture comprising phenylhalide, a chlorosilane of formula RaSiX4-a, and a co-solvent comprising a dialkyl ether and toluene. The halide is chlorine or bromine.

R = Ph, Me, vinyl, or H;
X = Cl or Br;
a = 0-2.

USE - For preparing phenyl-containing **Grignard** reagents used in preparing phenylchlorosilane intermediates for the preparation of silicone materials.

ADVANTAGE - The invention is capable for efficient removal of magnesium chloride formed by the reaction, and provides higher selectivity for the formation of desired phenylchlorosilane intermediates. It also allows a one step process for the preparation of the phenylchlorosilanes, and provides a faster reaction in the formation of the intermediates along with the reduction in the volume of waste products associated with the one step process. MANUAL CODE: CPI: A01-A03; E05-B01; E05-E02C; E05-E02D; E11-K
TECH

ORGANIC CHEMISTRY - Preferred Process: The process is carried out at 5-200degreesC and 200 or 0-125 psig in an inert atmosphere, i.e. nitrogen. Preferred Ratio: The ratio of dialkyl ether to toluene is 0:1-2:1 or 0.5:1-5:1. The volume ratio of the dialkyl ether solvent to the toluene is 0.05:1-10:1.
Preferred Component: The phenyl-halide is phenylchloride or phenylbromide. The dialkyl ether is diethyl ether. The chlorosilane is silicon tetrachloride, methyltrichlorosilane, dimethyldichlorosilane, phenylmethyldichlorosilane, phenyltrichlorosilane, diphenyldichlorosilane, vinyltrichlorosilane, hydridotrichlorosilane, divinyldichlorosilane, methylvinyldichlorosilane, phenylvinyldichlorosilane, hydridomethyldichlorosilane, hydridophenyldichlorosilane, hydridovinyldichlorosilane, or dihydridodichlorosilane.

L75 ANSWER 5 OF 18 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
DUPLICATE 5
ACCESSION NUMBER: 1999-169202 [15] WPIX
DOC. NO. CPI: C1999-049642 [15]
TITLE: New amino-silane preparation - by reacting a mixture of a heterocyclic amine and a halosilane in the presence of di:ethylene glycol di:butyl ether

DERWENT CLASS: E11
INVENTOR: CANNADY J P; **NGUYEN B T**
PATENT ASSIGNEE: (DOWO-C) DOW CORNING CORP
COUNTRY COUNT: 26

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
EP 902031	A2	19990317	(199915)*	EN	7[0]	
JP 11130781	A	19990518	(199930)	JA	6	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 902031 A2		EP 1998-306251	19980805
JP 11130781 A		JP 1998-241192	19980827

PRIORITY APPLN. INFO: US 1997-919543 19970828
INT. PATENT CLASSIF.:
MAIN: C07F007-12
IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-10 [I,A]; C07F0007-12 [I,A]
BASIC ABSTRACT:

EP 902031 A2 UPAB: 20050521

NOVELTY - New aminosilanes may be prepared by reacting a mixture of a heterocyclic amine of and a halosilane of in the presence of diethylene glycol dibutyl ether at 5-250°C.

DETAILED DESCRIPTION - A method for preparing aminosilanes comprises reacting a mixture of a heterocyclic amine of formula (I) and a halosilane of formula (II) in the presence of diethylene glycol dibutyl ether at 5-250°C. (where R = 1-20 C hydrocarbon; R1 = H or R; X = Cl or Br; Q = N or O, m = 0 or 1; and n = an integer, 2-5; k = 0 or 2; k+m+n = 4 or 5; a, b = integers, 0-3, provided a+b = 0-3.)

USE - None given.

ADVANTAGE - The reaction mixture is flowable and easily stirred, improving mass and heat transfer, and an improved yield of aminosilane, which is easily recoverable in one step from the 2-phase system. A high ratio is obtained of aminosilane produced to the reduced amount diethylene glycol dibutyl ether present compared to prior art **Grignard**-type processes. Unlike prior art methods, the method avoids the formation of 1 mole of amine hydrogen chloride per 1 mole of aminosilane product.

MANUAL CODE: CPI: E05-E01; E05-E03

Member(0002)
ABEQ JP 11130781 A UPAB 20050521

NOVELTY - New aminosilanes may be prepared by reacting a mixture of a heterocyclic amine of and a halosilane of in the presence of diethylene glycol dibutyl ether at 5-250°C.

DETAILED DESCRIPTION - A method for preparing aminosilanes comprises reacting a mixture of a heterocyclic amine of formula (I) and a halosilane of formula (II) in the presence of diethylene glycol dibutyl ether at 5-250°C. (where R = 1-20 C hydrocarbon; R1 = H or R; X = Cl or Br; Q = N or O, m = 0 or 1; and n = an integer, 2-5; k = 0 or 2; k+m+n = 4 or 5; a, b = integers, 0-3, provided a+b = 0-3.)

USE - None given.

ADVANTAGE - The reaction mixture is flowable and easily stirred, improving mass and heat transfer, and an improved yield of aminosilane, which is easily recoverable in one step from the 2-phase system. A high ratio is obtained of aminosilane produced to the reduced amount diethylene

glycol dibutyl ether present compared to prior art **Grignard**-type processes. Unlike prior art methods, the method avoids the formation of 1 mole of amine hydrogen chloride per 1 mole of aminosilane product.
DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L75 ANSWER 6 OF 18 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2007-122756 [12] WPIX
DOC. NO. CPI: C2007-045514 [12]
TITLE: Preparation of phenylmethyldichlorosilanes and diphenylmethylchlorosilanes involves contacting phenyl **Grignard** reagent, ether solvent, trichlorosilane and aliphatic or cycloparaffinic hydrocarbon coupling solvent
DERWENT CLASS: E11
INVENTOR: BAUER D C; **BEDBURY C J; NGUYEN B T**
PATENT ASSIGNEE: (DOWO-C) DOW CORNING CORP
COUNTRY COUNT: 111

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2006083665	A1	20060810	(200712)*	EN	15[0]	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2006083665	A1	WO 2006-US2760	20060125

PRIORITY APPLN. INFO: US 2005-648753P 20050201
INT. PATENT CLASSIF.:
IPC ORIGINAL: C07F0007-00 [I,C]; C07F0007-12 [I,A]
BASIC ABSTRACT:
WO 2006083665 A1 UPAB: 20070219
NOVELTY - Preparation of phenylmethyldichlorosilanes and diphenylmethylchlorosilanes by the **Grignard** process involves contacting a phenyl **Grignard** reagent, an ether solvent, a trichlorosilane and an aliphatic or cycloparaffinic hydrocarbon coupling solvent. The mole ratio of the ether solvent to the phenyl **Grignard** reagent is 2:5. The mole ratio of the trichlorosilane to the phenyl **Grignard** reagent is 0.1:10 and the mole ratio of the aliphatic or cycloparaffinic hydrocarbon coupling solvent to the phenyl **Grignard** reagent is 3:7.
USE - For preparation of phenylmethyldichlorosilanes and diphenylmethylchlorosilanes (claimed).
ADVANTAGE - The coupling solvent system allows magnesium chloride to precipitate very efficiently; provides very low viscosity slurries from which the magnesium chloride can be readily separated; and generates less by-products.
MANUAL CODE: CPI: E05-E01C; E10-H01E; E10-J02A2; E10-J02D; E11-F
TECH
ORGANIC CHEMISTRY - Preferred Components: The **Grignard** reagent is phenylmagnesium chloride. The ether solvent is a dialkyl ether (preferably dimethyl ether, diethyl ether, ethyl methyl ether, n-butyl methyl ether, n-butyl ethyl ether, di-n-butyl ether, di-isobutyl ether, isobutyl methyl ether or isobutyl ethyl ether. The trichlorosilane is methyltrichlorosilane, phenyltrichlorosilane or vinyltrichlorosilane.

L75 ANSWER 7 OF 18 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2003-502838 [47] WPIX
DOC. NO. CPI: C2003-134304 [47]

TITLE: Preparation of unsaturated organic compound, involves contacting organic halide with magnesium in mixture of ether and polar halogenated hydrocarbon, filtering obtained product and treating filtrate

DERWENT CLASS: E19

INVENTOR: **BEDBURY C J; NGUYEN B T**

PATENT ASSIGNEE: (DOWO-C) DOW CORNING CORP

COUNTRY COUNT: 101

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 6552237	B1	20030422	(200347)*	EN	4[0]	
WO 2003084901	A1	20031016	(200378)	EN		
AU 2003226150	A1	20031020	(200436)	EN		
EP 1490312	A1	20041229	(200502)	EN		
KR 2004106317	A	20041217	(200525)	KO		
JP 2005521738	W	20050721	(200549)	JA	12	
CN 1656049	A	20050817	(200572)	ZH		
IN 2004000557	P3	20050624	(200572)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 6552237	B1	US 2002-117425	20020404
AU 2003226150	A1	AU 2003-226150	20030331
CN 1656049	A	CN 2003-811630	20030331
EP 1490312	A1	EP 2003-746083	20030331
JP 2005521738	W	JP 2003-582100	20030331
WO 2003084901	A1	WO 2003-US9803	20030331
EP 1490312	A1	WO 2003-US9803	20030331
JP 2005521738	W	WO 2003-US9803	20030331
IN 2004000557	P3	WO 2003-US9803	20030331
KR 2004106317	A	KR 2004-715789	20041004
IN 2004000557	P3	IN 2004-MN557	20041006

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2003226150	A1	Based on	WO 2003084901 A
EP 1490312	A1	Based on	WO 2003084901 A
JP 2005521738	W	Based on	WO 2003084901 A

PRIORITY APPLN. INFO: US 2002-117425 20020404

INT. PATENT CLASSIF.:

MAIN: C07C001-32; C07C033-03

IPC RECLASSIF.: C07B0049-00 [I,A]; C07B0049-00 [I,C]; C07C0001-00 [I,C]; C07C0001-32 [I,A]; C07C0011-00 [I,C]; C07C0011-12 [I,A]; C07F0003-00 [I,C]; C07F0003-02 [I,A]

BASIC ABSTRACT:

US 6552237 B1 UPAB: 20060119

NOVELTY - An unsaturated organic halide is contacted with magnesium metal in a mixture of ether and a polar halogenated hydrocarbon co-solvent or a mixture of ether and a mixture of polar halogenated hydrocarbon co-solvent. The reaction product is filtered, and the filtrate is treated to obtain the desired unsaturated organic compounds.

USE - For preparing unsaturated organic compound.

ADVANTAGE - High purity unsaturated organic compound is obtained with high yield.

MANUAL CODE: CPI: E10-H04C1; E10-J02C; E11-F; E34-B

TECH

ORGANIC CHEMISTRY - Preferred Process: The unsaturated organic halide is contacted with magnesium at 5-200degreesC under ambient pressure to 200 psig.

Preferred Composition: The ratio of ether to total halogenated hydrocarbon co-solvent, and organic halide, is 1:5:1-4:2:1. The ratio of ether to the polar halogenated hydrocarbon co-solvent is 0.2:2-0.5:2.

Preferred Co-solvent: The polar halogenated hydrocarbon co-solvent is selected from aromatic halogenated hydrocarbon, and/or aliphatic halogenated hydrocarbon.

Preferred Organic Halide: The organic halide is allyl chloride.

L75 ANSWER 8 OF 18 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN

ACCESSION NUMBER: 2003-150059 [15] WPIX

DOC. NO. CPI: C2003-038996 [15]

TITLE: Production of styryl-substituted silanes, e.g. styryl-alkoxysilanes used in organic polymerizable silicate polycondensate, involves preparing **Grignard** compound from ring-halogenated styrene and reaction with organosilane

DERWENT CLASS: A41; E11

INVENTOR: FROEHLICH L; FROHLICH L; **JACOB S**; KAHLENBERG F; OLMA K; POPALL M

PATENT ASSIGNEE: (FRAU-C) FRAUNHOFER GES FOERDERUNG ANGEWANDTEN; (FRAU-C) FRAUNHOFER GES FOERDERUNG ANGEWANDTEN EV

COUNTRY COUNT: 31

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
DE 10159859	C1	20030116	(200315)*	DE	6[0]	
EP 1318153	A1	20030611	(200339)	DE		
US 20030139621	A1	20030724	(200352)	EN		
EP 1318153	B1	20040804	(200451)	DE		
DE 50200743	G	20040909	(200459)	DE		
US 6984747	B2	20060110	(200604)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DE 10159859	C1	DE 2001-10159859	20011206
DE 50200743	G	DE 2002-50200743	20021202
EP 1318153	A1	EP 2002-26787	20021202
EP 1318153	B1	EP 2002-26787	20021202
DE 50200743	G	EP 2002-26787	20021202
US 20030139621	A1	US 2002-313007	20021206
US 6984747	B2	US 2002-313007	20021206

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 50200743	G Based on	EP 1318153 A

PRIORITY APPLN. INFO: DE 2001-10159859 20011206

INT. PATENT CLASSIF.:
MAIN: C07F007-18
SECONDARY: C07F007-08
IPC ORIGINAL: C07F0007-00 [I,C]; C07F0007-04 [I,A]
IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-18 [I,A]
BASIC ABSTRACT:
DE 10159859 C1 UPAB: 20050706
NOVELTY - Production of styryl-substituted silanes comprises:
(i) reacting a ring-halogenated styrene in a solvent mixture of diethyl ether and tetrahydrofuran in 30:70 to 70:30 ratio by volume with magnesium, so that the reaction temperature does not exceed the boiling temperature of the mixture at room pressure; and
(ii) reacting the resultant **Grignard** reagent with a silane in a solvent mixture of diethyl ether and tetrahydrofuran at not more than 20degreesC.
DETAILED DESCRIPTION - Production of styryl-substituted silanes of formula (St)bSiR'aR4-a-b (I) comprises:
(i) reacting a ring-halogenated styrene of formula StX (II) in a solvent mixture of diethyl ether and tetrahydrofuran (THF) in 30:70 to 70:30 ratio by volume with magnesium, so that the reaction temperature does not exceed the boiling temperature of the mixture at room pressure; and
(ii) reacting the resultant **Grignard** reagent with a silane of formula SiR'aR3-a (III) in a solvent mixture of and THF at not more than 20degreesC:
St = optionally substituted styryl;
R = a group bound to silicon by a carbon atom;
R' = optionally substituted 1-12C alkoxy;
a = 0, 1, 2 or 3;
b = 1, 2 or 3;
X = halogen bound to the phenyl ring of the styryl group
USE - Styryl-functionalized alkoxysilanes are used in organic polymerizable silicate polycondensates useful for producing e.g. pigment particles, oxygen-permeable membranes or electrophotographic materials.
ADVANTAGE - The present method is simple and gives much better yields than existing methods of preparing styryl-functionalized alkoxysilanes.
MANUAL CODE: CPI: A01-A03; E05-E02; E11-H
TECH
ORGANIC CHEMISTRY - Preferred Conditions: The solvent consists of diethyl ether and THF in 50:50 to 60:40 ratio. The temperature at which the **Grignard** reagent is reacted with (III) is not more than 15degreesC. After reaction, the salt formed is (partly) separated and the solvent is removed, then the product is subjected to fractional distillation. 2,5-Di-tert.-butylhydroquinone, 2,6-di-tert.-butyl-p-cresol or preferably p-nitrosophenol is added as polymerization inhibitor.

L75 ANSWER 9 OF 18 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1999-166731 [14] WPIX
DOC. NO. CPI: C1999-048654 [14]
TITLE: Preparation of tert-hydrocarbyl-silyl compounds - useful as intermediates in the pharmaceutical industry
DERWENT CLASS: B05
INVENTOR: CANNADY J P; **NGUYEN B T**
PATENT ASSIGNEE: (DOWO-C) DOW CORNING CORP
COUNTRY COUNT: 27

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 5872274	A	19990216	(199914)*	EN	5[0]	
EP 963992	A2	19991215	(200003)	EN		

JP 2000044581 A 20000215 (200019) JA 7

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 5872274 A		US 1998-96324	19980611
EP 963992 A2		EP 1999-111013	19990610
JP 2000044581 A		JP 1999-163649	19990610

PRIORITY APPLN. INFO: US 1998-96324 19980611
INT. PATENT CLASSIF.:
IPC RECLASSIF.: B01J0023-72 [I,A]; B01J0023-72 [I,C]; B01J0027-06 [I,C]; B01J0027-122 [I,A]; B01J0031-04 [I,A]; B01J0031-04 [I,C]; C07B0061-00 [I,A]; C07B0061-00 [I,C]; C07F0007-00 [I,C]; C07F0007-12 [I,A]

BASIC ABSTRACT:
US 5872274 A UPAB: 20050521

NOVELTY - A method for the preparation of tert-hydrocarbylsilyl compounds is new. DETAILED DESCRIPTION - The method comprises reacting a mixture of diethylene glycol dibutyl ether and a **Grignard** reagent of formula RMgX with a silicon compound of formula R1aSiX4-a in the presence of a copper catalyst. R = 4-25C tert-hydrocarbyl group; R1 = optionally substituted monovalent 1-20C hydrocarbon group; X = halo; a = 0 to 3. Further claimed is a method comprising reacting magnesium metal with a mixture of diethylene glycol dibutyl ether, a **Grignard** reagent of formula RMgX with a silicon compound of formula R1aSiX4-a in the presence of a copper catalyst.

USE - The method is useful for preparing sterically hindered organosilicon intermediates, e.g. tert-hydrocarbylsilyl compounds, especially (tert-butyl)(n-propyl)dichlorosilane and tert- butyldimethylchlorosilane, which are useful in the pharmaceutical industry. DEFINITIONS - Preferred Definitions: R1a = Me and a = 2 or R1a = n-Pr or tert-butyl and a = 1.

MANUAL CODE: CPI: B05-A01B; B05-B01B; N02-D

Member(0002)
ABEQ EP 963992 A2 UPAB 20050521

NOVELTY - A method for the preparation of tert-hydrocarbylsilyl compounds is new. DETAILED DESCRIPTION - The method comprises reacting a mixture of diethylene glycol dibutyl ether and a **Grignard** reagent of formula RMgX with a silicon compound of formula R1aSiX4-a in the presence of a copper catalyst. R = 4-25C tert-hydrocarbyl group; R1 = optionally substituted monovalent 1-20C hydrocarbon group; X = halo; a = 0 to 3. Further claimed is a method comprising reacting magnesium metal with a mixture of diethylene glycol dibutyl ether, a **Grignard** reagent of formula RMgX with a silicon compound of formula R1aSiX4-a in the presence of a copper catalyst.

USE - The method is useful for preparing sterically hindered organosilicon intermediates, e.g. tert-hydrocarbylsilyl compounds, especially (tert-butyl)(n-propyl)dichlorosilane and tert-butyldimethylchlorosilane, which are useful in the pharmaceutical industry. DEFINITIONS - Preferred Definitions: R1a = Me and a = 2 or R1a = n-Pr or tert-butyl and a = 1.

Member(0003)
ABEQ JP 2000044581 A UPAB 20050521

NOVELTY - A method for the preparation of tert-hydrocarbylsilyl compounds is new. DETAILED DESCRIPTION - The method comprises reacting a mixture of diethylene glycol dibutyl ether and a **Grignard** reagent of formula RMgX with a silicon compound of formula R1aSiX4-a in the presence of a copper catalyst. R = 4-25C tert-hydrocarbyl group; R1 = optionally

substituted monovalent 1-20C hydrocarbon group; X = halo; a = 0 to 3. Further claimed is a method comprising reacting magnesium metal with a mixture of diethylene glycol dibutyl ether, a **Grignard** reagent of formula RMgX with a silicon compound of formula R1aSiX4-a in the presence of a copper catalyst.

USE - The method is useful for preparing sterically hindered organosilicon intermediates, e.g. tert-hydrocarbylsilyl compounds, especially (tert-butyl)(n-propyl)dichlorosilane and tert-butyldimethylchlorosilane, which are useful in the pharmaceutical industry. DEFINITIONS - Preferred Definitions: R1a = Me and a = 2 or R1a = n-Pr or tert-butyl and a = 1.

L75 ANSWER 10 OF 18 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1998-321663 [28] WPIX
DOC. NO. CPI: C1998-098955 [28]
TITLE: Preparation of alkenyl-silane derivatives, e.g. allyl-tri:methyl-silane - comprises reacting magnesium@ with an alkenyl halide and a halo-silane in di:ethylene glycol di:butyl ether
DERWENT CLASS: E11; E19
INVENTOR: DAVERN S P; **NGUYEN B T**
PATENT ASSIGNEE: (DOWO-C) DOW CORNING CORP
COUNTRY COUNT: 28

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 5756796	A	19980526	(199828)*	EN	4[0]	
EP 879822	A2	19981125	(199851)	EN		
JP 10316688	A	19981202	(199907)	JA	4	
CA 2237379	A	19981119	(199918)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 5756796	A	US 1997-861311	19970519
EP 879822	A2	EP 1998-303629	19980508
CA 2237379	A	CA 1998-2237379	19980512
JP 10316688	A	JP 1998-134924	19980518

PRIORITY APPLN. INFO: US 1997-861311 19970519
INT. PATENT CLASSIF.:
MAIN: C07F007-08
IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-08 [I,A]
BASIC ABSTRACT:
US 5756796 A UPAB: 20050521

Preparation of alkenylsilanes (I) comprises contacting magnesium metal with a mixture of: (i) an alkenyl halide of formula (II);

R1X (II)

R1 = 2-20C alkenyl; X = Cl or Br; (ii) diethylene glycol dibutyl ether (DEGDBE) (0.01-6 moles/mole of (II)); and (iii) a halosilane of formula (III) (0.1-10 moles/mole of (II));

(R2)aHbSi(X)4-a-b (III)

R2 = 1-12C hydrocarbyl; a, b = 0-3; a + b = 0-3. The reaction temperature is 5-200°C.

USE - For the preparation of alkenylsilanes, e.g. allyltrimethylsilane (Ia).

ADVANTAGE - The reaction mixture is flowable and easily stirred, thus

mass and heat transfer are improved compared with prior art **Grignard** reactions which tend to form unstirrable thick slurries. High product yields and low amounts of by-products are obtained. (I) can be separated easily from the reaction mixture, e.g. by distillation. MANUAL CODE: CPI: E05-E01; E05-E02

Member(0002)
ABEQ EP 879822 A2 UPAB 20050521
Preparation of alkenylsilanes (I) comprises contacting magnesium metal with a mixture of: (i) an alkenyl halide of formula (II);
R1X (II)
R1 = 2-20C alkenyl; X = Cl or Br; (ii) diethylene glycol dibutyl ether (DEGDBE) (0.01-6 moles/mole of (II)); and (iii) a halosilane of formula (III) (0.1-10 moles/mole of (II));
(R2)aHbSi(X)4-a-b (III)
R2 = 1-12C hydrocarbyl; a, b = 0-3; a + b = 0-3. The reaction temperature is 5-200°C.
USE - For the preparation of alkenylsilanes, e.g. allyltrimethylsilane (Ia).
ADVANTAGE - The reaction mixture is flowable and easily stirred, thus mass and heat transfer are improved compared with prior art **Grignard** reactions which tend to form unstirrable thick slurries. High product yields and low amounts of by-products are obtained. (I) can be separated easily from the reaction mixture, e.g. by distillation.

Member(0003)
ABEQ JP 10316688 A UPAB 20050521
Preparation of alkenylsilanes (I) comprises contacting magnesium metal with a mixture of: (i) an alkenyl halide of formula (II);
R1X (II)
R1 = 2-20C alkenyl; X = Cl or Br; (ii) diethylene glycol dibutyl ether (DEGDBE) (0.01-6 moles/mole of (II)); and (iii) a halosilane of formula (III) (0.1-10 moles/mole of (II));
(R2)aHbSi(X)4-a-b (III)
R2 = 1-12C hydrocarbyl; a, b = 0-3; a + b = 0-3. The reaction temperature is 5-200°C.
USE - For the preparation of alkenylsilanes, e.g. allyltrimethylsilane (Ia).
ADVANTAGE - The reaction mixture is flowable and easily stirred, thus mass and heat transfer are improved compared with prior art **Grignard** reactions which tend to form unstirrable thick slurries. High product yields and low amounts of by-products are obtained. (I) can be separated easily from the reaction mixture, e.g. by distillation.

L75 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1260899 HCAPLUS Full-text
DOCUMENT NUMBER: 144:7523
TITLE: Method of making branched polysilanes
INVENTOR(S): Hein, Travis; King, Russell Keith; **Nguyen, Binh Thanh**; Reese, Herschel Henry; Smith, Michael Andrew; Vo, Hahn Xuan
PATENT ASSIGNEE(S): Dow Corning Corporation, USA
SOURCE: PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005113648	A1	20051201	WO 2005-US16362	20050510 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1769019	A1	20070404	EP 2005-748143	20050510 <--
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
CN 1954018	A	20070425	CN 2005-80015496	20050510 <--
PRIORITY APPLN. INFO.:			US 2004-571184P	P 20040514 <--
			WO 2005-US16362	W 20050510

ED Entered STN: 02 Dec 2005

AB In a first method, branched polysilanes are prepared via a Wurtz-type coupling reaction by reacting a mixture of a dihalosilanes and a trihalosilanes with an alkali metal coupling agent in an organic liquid medium. The reaction mixture is free of tetrahalosilanes. The branched polysilanes are recovered from the reaction mixture In a second method, capped-branched polysilanes are prepared via the same Wurtz-type coupling reaction noted above, with the addition of a capping agent to the reaction mixture The capping agent can be a monohalosilane, monoalkoxysilane, or trialkoxysilane. Capped-branched polysilanes are recovered from the reaction mixture The branched polysilanes are soluble in organic liquid media.

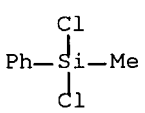
IT **54748-97-9DP**, Methyltrichlorosilane-phenylmethyldichlorosilane copolymer, terminated compds. **54748-97-9P**, Methyltrichlorosilane-phenylmethyldichlorosilane copolymer **606967-05-9DP**, Methyltrichlorosilane-phenylmethyldichlorosilane-phenyltrichlorosilane copolymer, terminated compds. **606967-05-9P**, Methyltrichlorosilane-phenylmethyldichlorosilane-phenyltrichlorosilane copolymer
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(method of making branched polysilanes by Wurtz type coupling reaction)

RN 54748-97-9 HCAPLUS

CN Silane, dichloromethylphenyl-, polymer with trichloromethylsilane (9CI) (CA INDEX NAME)

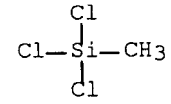
CM 1

CRN 149-74-6
CMF C7 H8 Cl2 Si



CM 2

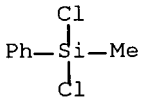
CRN 75-79-6
CMF C H3 Cl3 Si



RN 54748-97-9 HCAPLUS
CN Silane, dichloromethylphenyl-, polymer with trichloromethylsilane (9CI) (CA INDEX NAME)

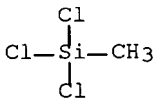
CM 1

CRN 149-74-6
CMF C7 H8 Cl2 Si



CM 2

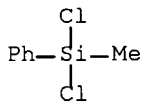
CRN 75-79-6
CMF C H3 Cl3 Si



RN 606967-05-9 HCAPLUS
CN Silane, dichloromethylphenyl-, polymer with trichloromethylsilane and trichlorophenylsilane (9CI) (CA INDEX NAME)

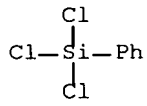
CM 1

CRN 149-74-6
CMF C7 H8 Cl2 Si



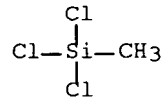
CM 2

CRN 98-13-5
CMF C6 H5 Cl3 Si



CM 3

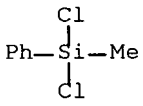
CRN 75-79-6
CMF C H3 Cl3 Si



RN 606967-05-9 HCAPLUS
CN Silane, dichloromethylphenyl-, polymer with trichloromethylsilane and trichlorophenylsilane (9CI) (CA INDEX NAME)

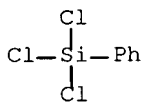
CM 1

CRN 149-74-6
CMF C7 H8 Cl2 Si



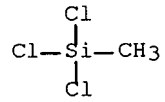
CM 2

CRN 98-13-5
CMF C6 H5 Cl3 Si



CM 3

CRN 75-79-6
CMF C H3 Cl3 Si



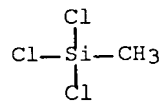
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:523162 HCAPLUS Full-text
DOCUMENT NUMBER: 141:190838
TITLE: Grignard Reaction with Chlorosilanes in THF: A Kinetic Study
AUTHOR(S): Tuulmets, Ants; **Nguyen, Binh T.**; Panov, Dmitri
CORPORATE SOURCE: Institute of Organic and Bioorganic Chemistry, University of Tartu, Tartu, 51014, Estonia
SOURCE: Journal of Organic Chemistry (**2004**), 69(15), 5071-5076
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 30 Jun 2004
AB Kinetics of the reactions of phenylmagnesium chloride and bromide and diphenylmagnesium with chlorosilanes were investigated in THF and in THF-hydrocarbon mixts. The reaction in THF is much faster than that in di-Et ether. Assuming coordination of magnesium halides with three mols. of THF, concns. of all the species involved in Schlenk equilibrium were calculated In the Grignard reaction, species R2Mg and RMgX react competitively accompanied by addnl. reaction paths involving electrophilic catalysis by magnesium halide. This conclusion also proved to be valid for the Grignard reaction with sterically hindered ketone tBuCOMe and probably can be expanded to any Grignard reaction. When Schlenk equilibrium is shifted far to the RMgX species, the catalytic pathways are insignificant. Silane phenylation kinetics in dependence of substituents on silicon was comparatively studied

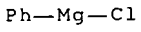
for MeSiCl3, MePhSiCl2 and Me(CH2:CH)SiCl2. Substituents at the silicon center control the rate of the reaction through their inductive and steric effects.

IT **75-79-6**, Trichloromethylsilane **100-59-4**, Phenylmagnesium chloride **149-74-6**, Dichloromethylphenylsilane
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(kinetics, solvent and substituent effects of chlorosilane arylation and ketone alkylation by Grignard reagents)

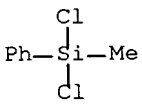
RN 75-79-6 HCAPLUS
CN Silane, trichloromethyl- (CA INDEX NAME)



RN 100-59-4 HCAPLUS
CN Magnesium, chlorophenyl- (CA INDEX NAME)



RN 149-74-6 HCAPLUS
CN Benzene, (dichloromethylsilyl)- (CA INDEX NAME)

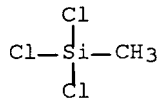


REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 13 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:	2005:708791 HCAPLUS Full-text
DOCUMENT NUMBER:	144:70676
TITLE:	Influence of cure systems on the properties of a room temperature vulcanized poly(dimethyl siloxane) adhesive
AUTHOR(S):	Chandran, K. M.; **Jacob, Soumya**; Achary, Sasidharan P.; Joseph, V. C.
CORPORATE SOURCE:	Vikram Sarabhai Space Centre, Thiruvananthapuram, 695022, India
SOURCE:	MACRO 2004, International Conference on Polymers for Advanced Technologies, Thiruvananthapuram, India, Dec. 15-17, 2004 (**2004**), OP.70/1-OP.70/4. Society for Polymer Science, India: Thiruvananthapuram, India.

CODEN: 69GSLU
DOCUMENT TYPE: Conference; (computer optical disk)
LANGUAGE: English
ED Entered STN: 10 Aug 2005
AB α,ω-Silanol terminated poly (di-Me siloxane) (PDMS) was room temperature vulcanized (RTV) with various cross linking agents such as Me tris-Me Et ketoxime silane (MOS), γ-amino Pr triethoxy silane (γ-APS), 3-glycidyloxy Pr trimethoxy silane (GPTMS), vinyl triethoxy silane: (VTES), and blends of MOS/ γ-APS, MOS/GPTMS and MOSNTES using di-Bu tin dilaurate (DBTDL) catalyst. Measurements of phys. parameters, adhesive properties, stress-strain properties, and cross link d. by swelling method were performed using a com. silanol terminated PDMS and the selected condensation cure systems. The results showed that cure systems can play a very important role in determining the properties of poly (dimethyl' siloxane) RTV. Vinyl terminated PDMS and Si-H functional crosslinking agent were synthesized and characterized. Room temperature vulcanized addition cure silicone was prepared by blending the vinyl terminated PDMS and Si-H functionalized crosslinking agent in the presence of a platinum catalyst and the properties were measured. It has been observed that functional groups present in the cure system influence the phys., adhesive, mech. and thermal characteristics of cross linked PDMS and that it is possible to modulate the properties by choosing the appropriate cure system.
IT **75-79-6**, Methyltrichlorosilane
RL: MOA (Modifier or additive use); USES (Uses)
(vulcanization agent; effect cure systems on properties of room-temperature vulcanized poly(dimethylsiloxane) rubber adhesive)
RN 75-79-6 HCAPLUS
CN Silane, trichloromethyl- (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 14 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:991235 HCAPLUS Full-text
DOCUMENT NUMBER: 140:16814
TITLE: Preparation of organosilicon intermediate and their derivatives in a novel Grignard process
INVENTOR(S): **Nguyen, Binh T.**
PATENT ASSIGNEE(S): Dow Corning Corp., USA
SOURCE: U.S. Pat. Appl. Publ., 5 pp.
CODEN: USXXCO
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003233005	A1	20031218	US 2002-172443	20020613 <--
US 6686492	B2	20040203		

PATENT INFORMATION:

WO 2003106465	A1	20031224	WO 2003-US16306	20030523 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003231820	A1	20031231	AU 2003-231820	20030523 <--
EP 1513851	A1	20050316	EP 2003-760223	20030523 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005529955	T	20051006	JP 2004-513296	20030523 <--
CN 1688591	A	20051026	CN 2003-816950	20030523 <--
IN 2004MN00710	A	20051118	IN 2004-MN710	20041209 <--
PRIORITY APPLN. INFO.:			US 2002-172443	A 20020613 <--
			WO 2003-US16306	W 20030523 <--

OTHER SOURCE(S): CASREACT 140:16814; MARPAT 140:16814

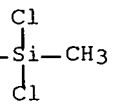
ED Entered STN: 21 Dec 2003

AB A one-step process for the preparation of organosilicon intermediates. The organosilicon intermediates comprise a group which includes such intermediates as 1,4-bis(dimethylsilyl)benzene, 1,4- bis(dimethylchlorosilyl)benzene, and their derivs. The process comprises: combining a dihalobenzene with magnesium metal in a co-solvent mixture of an ether and an organic solvent and reacting them with an organosilicon compound of the general formula, R2bHcSiXd. The resulting mixture is allowed to react to completion. The resulting mixture is passed through a filtration device. The liquid, now free of solid magnesium halide, is subjected to a separation technique to recover the subject organosilicon intermediates and their derivs. Thus, Grignard reaction of PhMgCl with MeSiCl3 in Et2O followed by separation with PhMe gave PhMeSiCl2.

IT **75-79-6**, Trichloro(methyl)silane **100-59-4**, Phenylmagnesium chloride **144-79-6**, Chloro(methyl)diphenylsilane
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of organosilicon intermediate and their derivs. in novel Grignard reaction of halosilane)

RN 75-79-6 HCAPLUS

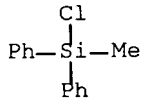
CN Silane, trichloromethyl- (CA INDEX NAME)



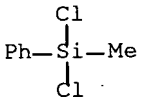
RN 100-59-4 HCAPLUS

CN Magnesium, chlorophenyl- (CA INDEX NAME)

RN 144-79-6 HCAPLUS
CN Benzene, 1,1'-(chloromethylsilylene)bis- (CA INDEX NAME)

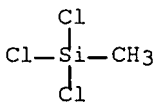


IT **149-74-6P**, Dichloro(methyl)(phenyl)silane
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of organosilicon intermediate and their derivs. in novel Grignard reaction of halosilane)
RN 149-74-6 HCAPLUS
CN Benzene, (dichloromethylsilyl)- (CA INDEX NAME)



L75 ANSWER 15 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:957789 HCAPLUS Full-text
DOCUMENT NUMBER: 140:111452
TITLE: Kinetics of the Grignard Reaction with Silanes in Diethyl Ether and Ether-Toluene Mixtures
AUTHOR(S): Tuulmets, Ants; **Nguyen, Binh T.**; Panov, Dmitri; Sassian, Meeri; Jaerv, Jaak
CORPORATE SOURCE: Institute of Organic and Bioorganic Chemistry, University of Tartu, Tartu, 51014, Estonia
SOURCE: Journal of Organic Chemistry (**2003**), 68(26), 9933-9937
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 09 Dec 2003
AB Kinetics of the reactions of butylmagnesium chloride and phenylmagnesium bromide with tetraethoxysilane and methyltrichlorosilane was investigated in di-Et ether and di-Et ether-toluene mixts. Replacement of ether by toluene significantly accelerates the reaction with alkoxysilanes, while no effect was found for the reaction with chlorosilanes. It was established that the reaction with alkoxysilanes consists of replacement of a donor mol. at the magnesium center by the silane followed by subsequent rearrangement of the complex to products through a four-center transition state. Chlorosilanes react differently without solvent mol. replacement but also via a four-center transition state. Large neg. activation entropies are consistent with formation of cyclic transition states. Small activation enthalpy values together with remarkable exothermicity point to early transition states of the reactions.
IT **75-79-6**, Trichloro(methyl)silane

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(kinetics of Grignard reaction with alkoxysilane and chlorosilanes in di-Et ether and ether-toluene mixts.)
RN 75-79-6 HCAPLUS
CN Silane, trichloromethyl- (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:50848 HCAPLUS Full-text
DOCUMENT NUMBER: 137:63801
TITLE: A new route to silicone resins of high fracture toughness: poly(silarylene and silalkylene silsesquioxane) networks
AUTHOR(S): Zhu, Bizhong; Katsoulis, Dimitris E.; **Nguyen, Binh T.**; Keryk, John R.; McGarry, Frederick J.
CORPORATE SOURCE: Dow Corning Corporation, Midland, MI, 48686, USA
SOURCE: International SAMPE Technical Conference (**2001**), 33, 697-708
CODEN: ISTCEF; ISSN: 0892-2624
PUBLISHER: Society for the Advancement of Material and Process Engineering
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 18 Jan 2002
AB Silarylene segments were incorporated into the crosslinked Me or phenylsilsesquioxane network structures, either through co-polymerization with silsesquioxane precursors, or through hydrosilylation between vinyl functional polysilsesquioxanes and silarylene containing compds. bearing at least two SiH groups. The copolymers were analyzed by GPC and 29Si NMR. The crosslinked networks were analyzed by solid state NMR, IR, TGA, and DMA. The mech. properties of these hybrid networks were also studied. It was shown that through both routes silarylene segments were incorporated into the mol. structure of the network. These segments generally improve the fracture toughness of the network without compromising the modulus and thermal stability. With an appropriate combination of silsesquioxane and silarylene segments a fracture toughness comparable to some tough organic thermosetting resins can be obtained, and the advantages of a siloxane network over organic resins are retained. The structure of the silarylene segment can be critical For some networks the para silphenylene segments significantly increases the fracture toughness but the ortho segments lowers it.
IT **156894-09-6P**, Trichloromethylsilane hydrolytic homopolymer
439600-60-9P, Trichloromethylsilane-1,4-bis(hydroxydimethylsilyl)benzene copolymer
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and property of poly(silarylene and silalkylene silsesquioxane) networks)
RN 156894-09-6 HCAPLUS

CN Silane, trichloromethyl-, homopolymer, hydrolytic (CA INDEX NAME)

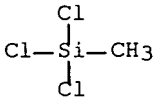
CM 1

CRN 7732-18-5
CMF H2 O

H_2O

CM 2

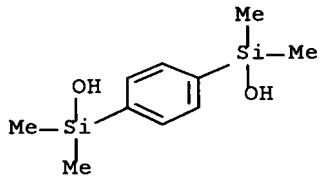
CRN 75-79-6
CMF C H3 Cl3 Si



RN 439600-60-9 HCAPLUS
CN Silanol, 1,4-phenylenebis[dimethyl-, polymer with trichloromethylsilane (9CI) (CA INDEX NAME)

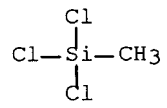
CM 1

CRN 2754-32-7
CMF C10 H18 O2 Si2



CM 2

CRN 75-79-6
CMF C H3 Cl3 Si

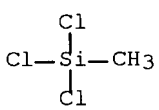


REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:342009 HCAPLUS Full-text
DOCUMENT NUMBER: 126:343682
TITLE: Method for preparation of allylsilanes via magnesium-promoted coupling of allyl halide and halosilane
INVENTOR(S): Bank, Howard M.; Davern, Sean P.; **Nguyen, Binh T.**
PATENT ASSIGNEE(S): Dow Corning Corporation, USA
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5629439	A	19970513	US 1996-624860	19960328 <--
EP 798302	A1	19971001	EP 1997-103593	19970305 <--
EP 798302	B1	19990915		
R: DE, FR, GB, IT, NL				
JP 10007684	A	19980113	JP 1997-57249	19970312 <--
PRIORITY APPLN. INFO.:			US 1996-624860 A	19960328 <--

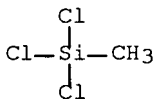
OTHER SOURCE(S): MARPAT 126:343682
ED Entered STN: 30 May 1997
AB A method for the preparation of allylsilanes (Me3SiR, Me2SiHR, MeSiHRCl, Me2SiRCl, MeSiRCl2, R = allyl). The method comprises contacting Mg metal with a mixture comprising diethylene glycol di-Bu ether, allyl chloride, and a halosilane (Me3SiCl, Me2SiHCl, MeSiHCl2, Me2SiCl2, MeSiCl3, resp.) at a temperature within a range of .apprx.5° to 20°. The method provides a high yield of allylsilane product that is easily recoverable and also provides for high ratios of allylsilane to hexadiene byproduct.
IT **75-79-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(magnesium-promoted coupling with allyl halide to give allylsilane)
RN 75-79-6 HCAPLUS
CN Silane, trichloromethyl- (CA INDEX NAME)



L75 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:657067 HCAPLUS Full-text
DOCUMENT NUMBER: 125:301236
TITLE: Disubstituted palladium catalysts for reacting organic halides with disilanes
INVENTOR(S): Bank, Howard M.; Naasz, Brian M.; **Nguyen, Binh T.**
PATENT ASSIGNEE(S): Dow Corning Corporation, USA
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5567837	A	19961022	US 1996-593317	19960131 <--
EP 787737	A1	19970806	EP 1997-300519	19970128 <--
R: DE, FR, GB, IT, NL				
JP 10007683	A	19980113	JP 1997-16314	19970130 <--
PRIORITY APPLN. INFO.:			US 1996-593317 A	19960131 <--

OTHER SOURCE(S): CASREACT 125:301236; MARPAT 125:301236
ED Entered STN: 07 Nov 1996
AB A process for reacting organic halides with disilanes to form monosilanes is described. The process uses disubstituted Pd compds. as catalysts. The process is especially useful for reacting alkenyl chlorides, such as allyl chloride, with disilanes to form monosilanes having alkenyl substitution. The process is also useful for converting the high-boiling disilane containing fraction resulting from the direct process for forming organosilanes into more useful monosilanes.
IT **75-79-6P**, Trichloromethylsilane
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 75-79-6 HCAPLUS
CN Silane, trichloromethyl- (CA INDEX NAME)



Text Search

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 This file contains CAS Registry Numbers for easy and accurate
 substance identification.
'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> D QUE L64
L2             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  DIPHENYLSILANE/CN
L3            82 SEA FILE=REGISTRY ABB=ON  PLU=ON  775-12-2/CRN
L4            80 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L2(L)PREP/RL
L5            51 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L3(L)PREP/RL
L6          6103 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GRIGNARD REACTION/CT
L7             3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L4 OR L5) AND L6
L8             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  DIPHENYLCHLOROSILANE/CN
L10           28 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L8(L)PREP/RL
L11            2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10 AND L6
L12          239 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L8
L13            3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L12 AND L6
L14         1171 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L2 OR L3)
L15            4 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L14 AND L6
L16            7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L7 OR L11 OR L13 OR L15)
L51            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  100-59-4/RN
L52            2 SEA FILE=REGISTRY ABB=ON  PLU=ON  100-59-4/CRN
L53            8 SEA FILE=REGISTRY ABB=ON  PLU=ON  75-79-6/RN OR 75-94-5/RN OR
                 98-13-5/RN OR 149-74-6/RN OR 80-10-4/RN OR  144-79-6/RN OR
                 1631-84-1/RN OR  7719-02-0/RN
L54         1803 SEA FILE=REGISTRY ABB=ON  PLU=ON  (144-79-6/CRN OR 149-74-6/CRN
                  OR 1631-84-1/CRN OR 75-79-6/CRN OR 75-94-5/CRN OR 7719-02-0/CR
                 N OR 80-10-4/CRN OR 98-13-5/CRN)
L55         1329 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L53(L)PREP/RL
L56         1536 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L54(L)PREP/RL
L57          828 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L51 OR L52)
L58           23 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L55 OR L56) AND (L57 OR L6)
L59           30 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L16 OR L58)
L60           17 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L59 AND P/DT
L61           16 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L60 AND (PY<=2004 OR AY<=2004
                 OR PRY<=2004)
L62           13 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L59 NOT L60
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L63          12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L62 AND PY<=2004
L64          28 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L61 OR L63)


=> S L64 NOT L39
L76          23 L64 NOT L39

=> FILE WPIX
FILE 'WPIX' ENTERED AT 18:19:44 ON 27 APR 2007
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FILE LAST UPDATED:                          26 APR 2007   <20070426/UP>
MOST RECENT THOMSON SCIENTIFIC UPDATE:      200727        <200727/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> New reloaded DWPI Learn File (LWPI) available as well <<<

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    2006. No update date (UP) has been created for the reclassified
    documents, but they can be identified by 20060101/UPIC and
    20061231/UPIC. <<<

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FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
http://scientific.thomson.com/support/patents/coverage/latestupdates/

PLEASE BE AWARE OF THE NEW IPC REFORM IN 2006, SEE
http://www.stn-international.de/stndatabases/details/ipc_reform.html and
http://scientific.thomson.com/media/scpdf/ipcrdwpi.pdf


>>> FOR DETAILS ON THE NEW AND ENHANCED DERWENT WORLD PATENTS INDEX
    PLEASE SEE
http://www.stn-international.de/stndatabases/details/dwpi_r.html <<<
'BI,ABEX' IS DEFAULT SEARCH FIELD FOR 'WPIX' FILE

=> D QUE L73
L46        3925 SEA FILE=WPIX ABB=ON  PLU=ON  GRIGNARD/BI,ABEX
L51           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  100-59-4/RN
L53           8 SEA FILE=REGISTRY ABB=ON  PLU=ON  75-79-6/RN OR 75-94-5/RN OR
                  98-13-5/RN OR 149-74-6/RN OR 80-10-4/RN OR  144-79-6/RN OR
                  1631-84-1/RN OR  7719-02-0/RN
L65               SEL  PLU=ON  L53 1- NAME :       61 TERMS
L66        2588 SEA FILE=WPIX ABB=ON  PLU=ON  L65
L67        2588 SEA FILE=WPIX ABB=ON  PLU=ON  L66 OR L53
L69               SEL  PLU=ON  L51 1- NAME :        2 TERMS
L70          41 SEA FILE=WPIX ABB=ON  PLU=ON  L69
L71          41 SEA FILE=WPIX ABB=ON  PLU=ON  L70 OR L51
L72          24 SEA FILE=WPIX ABB=ON  PLU=ON  L67 AND (L71 OR L46)
L73          23 SEA FILE=WPIX ABB=ON  PLU=ON  L72 AND (PY<=2004 OR AY<=2004 OR
                  PRY<=2004)
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=> S L73 NOT L48
L77         18 L73 NOT L48

=> DUP REM L77 L76
FILE 'WPIX' ENTERED AT 18:20:12 ON 27 APR 2007
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PROCESSING COMPLETED FOR L77
PROCESSING COMPLETED FOR L76
L78          39 DUP REM L77 L76 (2 DUPLICATES REMOVED)
                ANSWERS '1-18' FROM FILE WPIX
                ANSWERS '19-39' FROM FILE HCAPLUS

=> D IALL ABEQ TECH HITSTR 1-18; D IBIB ED ABS HITSTR 19-39

L78  ANSWER 1 OF 39  WPIX COPYRIGHT 2007       THE THOMSON CORP on STN
     DUPLICATE 1
ACCESSION NUMBER:     1997-516227 [48]   WPIX
DOC. NO. CPI:         C1997-165020 [48]
TITLE:                New organic silicon compounds, used for preparation of
                      poly:silane  - are prepared by reacting tri:halo:silane
                      with Grignard reagents prepared from
                      halogenated catechol
DERWENT CLASS:        A26; E11
INVENTOR:             ISHIFUNE M; KASHIWAMURA S; MURASE H; NISHIDA R; SHONO T
PATENT ASSIGNEE:      (OSAG-C) OSAKA GAS CO LTD; (SHON-I) SHONO T
COUNTRY COUNT:        1

PATENT INFORMATION:

      PATENT NO      KIND DATE     WEEK     LA  PG          MAIN IPC
      ------------------------------------------------------------
      JP 09241267    A  19970916 (199748)* JA  13[5]                  <--

APPLICATION DETAILS:

      PATENT NO      KIND                  APPLICATION    DATE
      ------------------------------------------------------------
      JP 09241267 A                        JP 1996-51867 19960308

PRIORITY APPLN. INFO: JP 1996-51867 19960308
INT. PATENT CLASSIF.:
 IPC RECLASSIF.:      C07F0007-00 [I,C]; C07F0007-12 [I,A]; C08G0077-00 [I,C];
                      C08G0077-48 [I,A]; C08G0077-60 [I,A]
BASIC ABSTRACT:
           JP 09241267 A   UPAB: 20060113
           Dihalosilane of formula (I) is new:. In (I), R = H, alkyl, aryl, alkoxy,
      amino or silyl; and X= halogen.
           I) are prepared by reacting trihalosilane of formula R Si(X)3(III) with
      Grignard reagents prepared from halogenated catechol of formula (II) and Mg.
      X1= halogen.
           USE - (I) are used as base materials for preparation of polysilane.
MANUAL CODE:          CPI: A06-A00A; E05-E01
```

L78 ANSWER 2 OF 39 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
DUPLICATE 2
ACCESSION NUMBER: 1997-095476 [09] WPIX
DOC. NO. CPI: C1997-030571 [09]
TITLE: Preparation of halogenated silicon-containing cpd. useful e.g. as
pharmaceutical intermediate - comprises **Grignard** reaction in poly-alkylene-glycol-di:alkyl-ether solvent, gives high yield without formation of by-prods.
DERWENT CLASS: A60; B05; E11
INVENTOR: FUJIKAWA M; HANEDA H; KATSUMURA R; SAKAMOTO N
PATENT ASSIGNEE: (NOKS-C) NITTO KASEI CO LTD
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
JP 08333374	A	19961217	(199709)*	JA	6[0]		<--
JP 3656168	B2	20050608	(200538)	JA	8		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 08333374 A		**JP 1995-170352**	**19950612**
JP 3656168 B2		**JP 1995-170352**	**19950612**

FILING DETAILS:

PATENT NO	KIND		PATENT NO
JP 3656168 B2		Previous Publ	JP 08333374 A

PRIORITY APPLN. INFO: **JP 1995-170352 19950612**
INT. PATENT CLASSIF.:
IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-12 [I,A]
BASIC ABSTRACT:
JP 08333374 A UPAB: 20060112
Preparation of silicon containing cpd. of formula (R5)mSi(R4)n(X)4-m-n (IV) comprises coupling a silicon containing cpd. of formula (R5)mSi(X)4-m (III) with a **Grignard** reagent of formula R4MgX (II) in a polyalkyleneglycoldialkylether solvent of formula R1O(CH(R)CH2O)R2 (I) and extracting and purifying (IV) using hydrocarbon solvent. R1, R2 = 1-8 C alkyl; R3 = H or Me; l = 1-6; X = halo; R5 = H or hydrocarbon gp.; m = 0-2; and m+n = 1-3.
USE - (IV) is used as a protective gp. in pharmaceutical synthesis, and as a raw material for surfactants and a polymer modifier.
ADVANTAGE - The method provides the product safely and in high yield omitting a stage of removing such a side-products as MgCl2 complex. MANUAL CODE: CPI: A08-M01D; A10-E08A; B05-B01B; E05-E
DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L78 ANSWER 3 OF 39 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2005-321643 [33] WPIX
CROSS REFERENCE: 2006-044097
DOC. NO. CPI: C2005-100227 [33]
DOC. NO. NON-CPI: N2005-263068 [33]
TITLE: Preparation of end-functionalized conjugated oligomer of polyarylene by forming oligomer by reacting phenol-,

thiol- or amine-containing compound and compound from bis-boronic acid or ester or bis-haloarene, isolating and purifying oligomer

DERWENT CLASS: A23; A89; U11; U12; U14
INVENTOR: CELLA J A; CELLA J
PATENT ASSIGNEE: (CELL-I) CELLA J A; (GENE-C) GENERAL ELECTRIC CO
COUNTRY COUNT: 107

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 20050075473	A1	20050407	(200533)*	EN	14[1]	
WO 2005035618	A1	20050421	(200533)	EN		
EP 1673403	A1	20060628	(200643)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 20050075473	A1	**US 2003-680470**	**20031007**
WO 2005035618	A1	**WO 2004-US32914**	**20041006**
EP 1673403	A1	**EP 2004-794315**	**20041006**
EP 1673403	A1	**WO 2004-US32914**	**20041006**

FILING DETAILS:

PATENT NO	KIND		PATENT NO	
EP 1673403	A1	Based on	WO 2005035618	A

PRIORITY APPLN. INFO: **US 2003-680470 20031007**
INT. PATENT CLASSIF.:
IPC ORIGINAL: C08G0061-12 [I,A]
IPC RECLASSIF.: C07C0029-00 [I,C]; C07C0029-40 [I,A]; C07C0029-44 [I,A]; C07C0039-00 [I,C]; C07C0039-17 [I,A]; C08G0061-00 [I,C]; C08G0061-02 [I,A]; C08G0061-12 [I,A]

BASIC ABSTRACT:

US 20050075473 A1 UPAB: 20051221

NOVELTY - An end-functionalized conjugated oligomer of a polyarylene is prepared by effecting a reaction between a compound comprising a phenol, thiol or amine functional moiety which is substituted with an aryl halide or aryl boronic acid or ester, and a compound from a bis-boronic acid or ester or a bis-haloarene to form an oligomer; isolation and purification of the oligomer.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(A) a process for forming a polymer comprising a series of end functionalized conjugated oligomers of a polyarylene comprising effecting a reaction between a compound comprising a phenol, thiol or amine functional moiety which is substituted with an aryl halide or aryl boronic acid or ester, and a compound from a bis-boronic acid or ester or a bis-haloarene to form an oligomer having an amine thio or amine functional moiety, isolation and purification of the oligomer having an amine thio or amine functional moiety formed, and reacting the phenol, thiol, or amine functional moiety present on the oligomer with a difunctional monomer to form a polymer;

(B) a light emitting device comprising an active layer which is formed from a polymer produced above;

(C) a photovoltaic device comprising an active layer which is formed from a polymer produced above; and

(D) a polymer composition comprising a polymer of formula ((D-G-n-D)-M)m.

D=A-functional segment of formula Ar-A-Ha;
Ar=aromatic unit, preferably Ph, substituted Ph, naphthyl, anthryl, biphenyl, and/or substituted variants;
A=O, N, or S;
a=1-3;
G=oligophenylene;
n=1-25;
M=linking group, and formed by reacting at least one MX2 with the (D-Gn-D) segments;
m=1-1000;
MX2=bisphenol A-bis-chloroformate, terephthalic acid and its diacid chloride, dichlorophenylsulfone, pyromellitic dianhydride, adipolychloride, **diphenyldichlorosilane**, dimethyldichlorosilane, 1,1,3,3-tetramethyldisiloxane, and/or phosgene.
USE - For the preparation of an end-functionalized conjugated oligomer of a polyarylene used in producing polymer for active layers in light emitting device as well as photovoltaic devices (claimed).
ADVANTAGE - The invention provides an efficient process to prepare end-functionalized conjugated oligomers. The telechelic oligomers can be readily purified by conventional techniques (chromatography or recrystallization). Also, the emissive components of the oligomers can be readily varied to achieve desirable processibility characteristics, color emission, emission efficiency, and charge transport properties. Further, the conjugation length is readily tailored and the polymerization chemistry can be selected to minimize side reactions, maximize molecular weight control, and tailor physical properties of the final polymer.
MANUAL CODE: CPI: A01-E00E; A05-K00K; A12-E11C
EPI: U11-A15B; U12-A01A1X; U12-A02A2X; U12-B03C; U14-J

TECH
ORGANIC CHEMISTRY - Preferred Method: The phenol, thiol or amine functional moiety is reacted with a compound of formula (1) or (2).
R=moiety from alkyl, substitute alkyl, aryl or substituted aryl radicals;
Ar=aromatic moiety from Ph, substituted Ph, naphthyl, substituted naphthyl, anthryl, substituted anthryl biphenylyl, or substituted biphenylyl, preferably 4-t-butylphenyl;
A=O, S or N;
n=1 or 2.
POLYMERS - Preferred Compound: The resulting oligomer is a compound of formula (3). The difunctional monomer is a compound from bisphenol A (BPA)-bis-chloroformate, terephthalic acid, terephthalic diacid chloride, dichlorophenylsulfone, pyromellitic dianhydride, adipolychloride, **diphenyldichlorosilane**, dimethyldichlorosilane, phosgene, and/or 1,1,3,3-tetramethyldisiloxane. Preferred Method: The oligomer is further polymerized with a difunctional monomer having the formula MX2 to form a polymeric compound of formula (4).
MX2=difunctional monomer (which is capable of reacting with the AHb group to form a polymer), preferably compound from BPA-bis-chloroformate, terephthalic acid, terephthalic diacid chloride, dichlorophenylsulfone, pyromellitic dianhydride, adipolychloride, **diphenyldichlorosilane**, dimethyldichlorosilane, phosgene, and/or 1,1,3,3-tetramethyldisiloxane.

L78 ANSWER 4 OF 39 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2001-328009 [34] WPIX
DOC. NO. CPI: C2001-100538 [34]
TITLE: Poly(silylene ethynylene phenylene ethynylene) polymer with terminal groups derived from a chain limiting agent is prepared by reacting a **Grignard** reagent and a chain limiter with a dihalide and hydrolysing
DERWENT CLASS: A26; A85
INVENTOR: BUVAT P; JOUSSE F; LEVASSORT C
PATENT ASSIGNEE: (COMS-C) COMMISSARIAT ENERGIE ATOMIQUE

COUNTRY COUNT: 22

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
WO 2001019899	A1	20010322	(200134)*	FR	57[1]		<--
FR 2798662	A1	20010323	(200134)	FR			<--
EP 1226203	A1	20020731	(200257)	FR			<--
JP 2003509557	W	20030311	(200319)	JA	45		<--
US 6703519	B1	20040309	(200418)	EN			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001019899	A1	**WO 2000-FR2562**	**20000915**
FR 2798662	A1	**FR 1999-11583**	**19990916**
EP 1226203	A1	**EP 2000-962652**	**20000915**
EP 1226203	A1	**WO 2000-FR2562**	**20000915**
JP 2003509557	W	**WO 2000-FR2562**	**20000915**
US 6703519	B1	**WO 2000-FR2562**	**20000915**
JP 2003509557	W	**JP 2001-523674**	**20000915**
US 6703519	B1	**US 2002-88167**	**20020315**

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1226203 A1	Based on	WO 2001019899 A
JP 2003509557 W	Based on	WO 2001019899 A
US 6703519 B1	Based on	WO 2001019899 A

PRIORITY APPLN. INFO: **FR 1999-11583 19990916**
INT. PATENT CLASSIF.:
IPC RECLASSIF.: C08G0077-00 [I,C]; C08G0077-60 [I,A]
BASIC ABSTRACT:

WO 2001019899 A1 UPAB: 20060117

NOVELTY - Heat stable poly(silylene ethynylene phenylene ethynylene) polymer of formula (I) or (Ia) has terminal groups derived from a chain limiting agent is prepared by reacting a **Grignard** reagent and a chain limiter with a dihalide in an aprotic solvent and hydrolysing

DETAILED DESCRIPTION - Poly(silylene ethynylene phenylene ethynylene) polymer has terminal groups derived from a chain limiting agent. INDEPENDENT CLAIMS are included for a polymer of formula (Ib) prepared by hydrolyzing (Ia) at Y groups, the preparation of polymer (I) by reacting a **Grignard** reagent of formula (IV) and a chain limiter of formula (V) with a dihalide of formula (VII) in an aprotic solvent and hydrolysing, the preparation of polymer (Ia) by reacting a compound of formula (X) and a chain limiter of formula (XIII) with a compound of formula (XII) in the presence of a basic metal oxide, a hardened product obtained by heat treatment at 50-700degreesC and a matrix for composites comprising the polymer:

XMg-(formula X)-MgX (IV)
X-Si(R')(R'')-X (VII)
H-Si(R')(R'')-H (XII)
R'''-Si(R')(R'')-H (XIII)
phenylene = o, m or p;

R = halide, 1-29C alkyl, 1-20C alkoxy, 6-20C aryl, 2-20C alkenyl, 2-20C alkynyl, 6-20C aromatic, 2-20C (disubstituted) amino or silanyl with 1-10 Si,

or one or more H can be replaced by F, Cl, Br, I, alkoxy, aryloxy, silanyl or (disubstituted)amino;
n = 0-4;
q = 1-40;
R' and R'' = H, 1-20C alkyl, 2-20C alkenyl or alkynyl or 6-20C aromatic group or one or more H can be replaced by F, Cl, Br, I, alkoxy, aryloxy, silanyl or (disubstituted)amino;
Y = chain limiter group of formula (II);
X = Cl, Br or I;
R''' = R; and
n' = n.
USE - None given.
ADVANTAGE - The heat stability is good and the viscosity is low enough for it to be processed.
MANUAL CODE: CPI: A02-B; A06-A00A; A09-A01A

Member(0001)
ABEQ FR 2798662 A1 UPAB 20060117
NOVELTY - Heat stable poly(silylene ethynylene phenylene ethynylene) polymer of formula (I) or (Ia) has terminal groups derived from a chain limiting agent is prepared by reacting a **Grignard** reagent and a chain limiter with a dihalide in an aprotic solvent and hydrolysing
DETAILED DESCRIPTION - Poly(silylene ethynylene phenylene ethynylene) polymer has terminal groups derived from a chain limiting agent. INDEPENDENT CLAIMS are included for a polymer of formula (Ib) prepared by hydrolyzing (Ia) at Y groups, the preparation of polymer (I) by reacting a **Grignard** reagent of formula (IV) and a chain limiter of formula (V) with a dihalide of formula (VII) in an aprotic solvent and hydrolysing, the preparation of polymer (Ia) by reacting a compound of formula (X) and a chain limiter of formula (XIII) with a compound of formula (XII) in the presence of a basic metal oxide, a hardened product obtained by heat treatment at 50-700degreesC and a matrix for composites comprising the polymer:
XMg-(formula X)-MgX (IV)
X-Si(R')(R'')-X (VII)
H-Si(R')(R'')-H (XII)
R'''-Si(R')(R'')-H (XIII)
phenylene = o, m or p;
R = halide, 1-29C alkyl, 1-20C alkoxy, 6-20C aryl, 2-20C alkenyl, 2-20C alkynyl, 6-20C aromatic, 2-20C (disubstituted) amino or silanyl with 1-10 Si, or one or more H can be replaced by F, Cl, Br, I, alkoxy, aryloxy, silanyl or (disubstituted)amino;
n = 0-4;
q = 1-40;
R' and R'' = H, 1-20C alkyl, 2-20C alkenyl or alkynyl or 6-20C aromatic group or one or more H can be replaced by F, Cl, Br, I, alkoxy, aryloxy, silanyl or (disubstituted)amino;
Y = chain limiter group of formula (II);
X = Cl, Br or I;
R''' = R; and
n' = n.
USE - None given.
ADVANTAGE - The heat stability is good and the viscosity is low enough for it to be processed.
TECH
POLYMERS - Preferred Materials The ratio of terminal groups Y to silylene ethynylene phenylene ethynylene units is 0.01-1.5 (0.25-1) and the mol. amount of Y terminal groups is 1-60 (20-50) % (claimed). The polymer has a mol. wt. of 600-10,000, a viscosity of 0.1-1000 mPa.s and a Tg of -150 to +10degreesC (claimed).

DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L78 ANSWER 5 OF 39 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2000-063805 [06] WPIX
DOC. NO. CPI: C2000-017910 [06]
TITLE: Preparation of organosilane derivatives
DERWENT CLASS: A26; B05; E11
INVENTOR: ABELE B C; WINTERFELD J
PATENT ASSIGNEE: (WACK-C) WACKER CHEM GMBH
COUNTRY COUNT: 28

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
DE 19837906	C1	19991216	(200006)*	DE	5[0]		<--
EP 980870	A1	20000223	(200015)	DE			<--
JP 2000086675	A	20000328	(200026)	JA	5		<--
CN 1245807	A	20000301	(200029)	ZH			<--
CA 2279739	A1	20000220	(200032)	EN			<--
US 6156918	A	20001205	(200066)	EN			<--
EP 980870	B1	20011212	(200204)	DE			<--
DE 59900529	G	20020124	(200208)	DE			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
DE 19837906 C1		**DE 1998-19837906**	**19980820**
DE 59900529 G		**DE 1999-59900529**	**19990701**
EP 980870 A1		**EP 1999-112748**	**19990701**
EP 980870 B1		**EP 1999-112748**	**19990701**
DE 59900529 G		**EP 1999-112748**	**19990701**
US 6156918 A		**US 1999-363684**	**19990729**
CA 2279739 A1		**CA 1999-2279739**	**19990805**
JP 2000086675 A		**JP 1999-229936**	**19990816**
CN 1245807 A		**CN 1999-111538**	**19990820**

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 59900529 G	Based on	EP 980870 A

PRIORITY APPLN. INFO: **DE 1998-19837906 19980820**
INT. PATENT CLASSIF.:
MAIN: C07F007-08
IPC RECLASSIF.: B01J0023-72 [I,A]; B01J0023-72 [I,C]; B01J0027-06 [I,C]; B01J0027-122 [I,A]; B01J0031-02 [I,A]; B01J0031-02 [I,C]; B01J0031-04 [I,A]; B01J0031-04 [I,C]; C07B0049-00 [I,A]; C07B0049-00 [I,C]; C07B0061-00 [I,A]; C07B0061-00 [I,C]; C07F0007-00 [I,C]; C07F0007-08 [I,A]; C07F0007-12 [I,A]

BASIC ABSTRACT:
DE 19837906 C1 UPAB: 20050705
NOVELTY - Preparation process of silane derivatives (I) comprises reaction of **Grignard** reagents (II) with silane derivatives (III) in the presence of a transition metal catalyst and an inert, aprotic chelating agent.
DETAILED DESCRIPTION - Preparation process of silane derivatives of formula RmR1nSiX4-m-n (I) comprises reaction of **Grignard** reagents of formula

R1MgX1 (II) with silane derivatives of formula RmSiX4-m (III) in the presence of a transition metal catalyst and an inert, aprotic chelating agent.

R = a 1-10C hydrocarbon optionally substituted by F, Cl or CN;

R1 = a 4-30C hydrocarbon, with a tertiary C atom alpha- to the Si atom, and which is optionally substituted by F, Cl or CN;

X, X1 = Cl, Br or I;

m = 2 or 3;

n = 1 or 2.

USE - Compounds (I) are useful as silylation agents in the preparation of pharmaceuticals and in analytical techniques.

ADVANTAGE - Known methods for preparing silane compounds involve e.g. reaction of tert.-butylmagnesium **Grignard** reagents with halosilanes in the presence of cyanate- or thiocyanate-containing catalysts such as silver cyanide. Use of these compounds poses environmental problems and results in contamination of the final product with an unpleasant smell. The method described in the invention avoids these problems and is economical and simple. MANUAL CODE: CPI: A12-M05; B05-B01B; E05-E02A; E05-E02B; N02-D; N03-F; N05-B

TECH

ORGANIC CHEMISTRY - Preferred Process: The catalyst is a copper (I) or (II) compound, or a zinc compound. The chelating agent is selected from glycol ethers, poly(organoamines), poly(organophosphines) or their hetero-substituted derivatives. The reaction takes place at -30 to +160 degreesC, preferably 0-120 degreesC.

L78 ANSWER 6 OF 39 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN

ACCESSION NUMBER: 1998-399085 [34] WPIX

DOC. NO. CPI: C1998-120926 [34]

TITLE: Production of polysilane(s) - for use as starting material of engineering plastics e.g. modified polycarbonate to improve hardness, resist material and electrophotographic photoreceptor material

DERWENT CLASS: A23; A26; A85; A88

INVENTOR: MURASE H; NISHIDA R

PATENT ASSIGNEE: (OSAG-C) OSAKA GAS CO LTD

COUNTRY COUNT: 21

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
WO 9830618	A1	19980716	(199834)*	JA	77[15]		<--
CN 1242783	A	20000126	(200024)	ZH			<--
EP 1006141	A1	20000607	(200032)	EN			<--
JP 10530738	X	20000530	(200037)	JA			<--
KR 2000069967	A	20001125	(200131)	KO	[15]		<--
JP 3177683	B2	20010618	(200136)	JA	22		<--
US 6255430	B1	20010703	(200140)	EN			<--
EP 1006141	B1	20030820	(200356)	EN			<--
DE 69817367	E	20030925	(200371)	DE			<--
CN 1098880	C	20030115	(200532)	ZH			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9830618	A1	**WO 1998-JP17**	**19980107**
CN 1242783	A	**CN 1998-801634**	**19980107**
CN 1098880	C	**CN 1998-801634**	**19980107**
DE 69817367	E	**DE 1998-69817367**	**19980107**

EP 1006141 A1	**EP 1998-900164 19980107**
EP 1006141 B1	**EP 1998-900164 19980107**
DE 69817367 E	**EP 1998-900164 19980107**
JP 10530738 X	**JP 1998-530738 19980107**
JP 3177683 B2	**JP 1998-530738 19980107**
EP 1006141 A1	**WO 1998-JP17 19980107**
JP 10530738 X	**WO 1998-JP17 19980107**
KR 2000069967 A	**WO 1998-JP17 19980107**
JP 3177683 B2	**WO 1998-JP17 19980107**
US 6255430 B1	**WO 1998-JP17 19980107**
EP 1006141 B1	**WO 1998-JP17 19980107**
DE 69817367 E	**WO 1998-JP17 19980107**
KR 2000069967 A	**KR 1999-706182 19990707**
US 6255430 B1	**US 1999-341304 19990708**

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 69817367 E	Based on	EP 1006141 A
EP 1006141 A1	Based on	WO 9830618 A
JP 10530738 X	Based on	WO 9830618 A
KR 2000069967 A	Based on	WO 9830618 A
JP 3177683 B2	Based on	WO 9830618 A
US 6255430 B1	Based on	WO 9830618 A
EP 1006141 B1	Based on	WO 9830618 A
DE 69817367 E	Based on	WO 9830618 A

PRIORITY APPLN. INFO: **JP 1997-2325 19970109**
INT. PATENT CLASSIF.:
MAIN: C08G077-60
IPC RECLASSIF.: C08G0063-00 [N,C]; C08G0063-695 [N,A]; C08G0064-00 [N,C]; C08G0064-08 [N,A]; C08G0077-00 [I,C]; C08G0077-60 [I,A]
SECONDARY: C08L083-16
BASIC ABSTRACT:

WO 1998030618 A1 UPAB: 20060114

Polysilanes of formula (I) are new. (I) R = H, alkyl, aryl, alkoxy, amino, or silyl; both R can be the same or different; position of OH = in the p- or m-position; n = 2-10,000. Also claimed are the following; (i) similar polysilanes of formula (VI); Y = CH2, C2H4, C3H6, C4H8, O, or S; (ii) a process for preparing a polysilane with phenyl groups at both terminals by reacting a polysilane halogenated at both terminals of formula (II) with a hydroxyl-protected halogenated phenol of formula (III) after producing its **Grignard** reagent via reaction with magnesium (Mg) to give a protected polysilane of formula (IV) then deprotection by reacting with acid to afford the polysilane (I); and (II), X = halo; R1 = hydroxyl-protecting group including alkyl, alkoxyalkyl, silyl, acyl, alkylthioalkyl or alkylsulphoxy; X1 = halo; (iii) a similar process for making the polysilane (IV) by reacting (II) with the **Grignard** reagent obtained from the hydroxyl-protected halogenate d phenol derivative of formula (VII) to provide the protected polysilane (VIII) then deblocking to compound (VI).

USE - The polysilanes can be applied as starting material of engineering plastics including modified polycarbonate, resist material and electrophotographic photoreceptor material, particularly as hard-coating material.

ADVANTAGE - The said polysilanes can impart hardness to e.g. modified polycarbonate particularly bisphenol-A polycarbonate. MANUAL CODE: CPI: A06-A00A; A10-D

Member(0002)

ABEQ CN 1242783 A UPAB 20060114

Polysilanes of formula (I) are new. (I) R = H, alkyl, aryl, alkoxy, amino, or silyl; both R can be the same or different; position of OH = in the p- or m-position; n = 2-10,000. Also claimed are the following; (i) similar polysilanes of formula (VI); Y = CH2, C2H4, C3H6, C4H8, O, or S; (ii) a process for preparing a polysilane with phenyl groups at both terminals by reacting a polysilane halogenated at both terminals of formula (II) with a hydroxyl-protected halogenated phenol of formula (III) after producing its **Grignard** reagent via reaction with magnesium (Mg) to give a protected polysilane of formula (IV) then deprotection by reacting with acid to afford the polysilane (I); and (II), X = halo; R1 = hydroxyl-protecting group including alkyl, alkoxyalkyl, silyl, acyl, alkylthioalkyl or alkylsulphoxy; X1 = halo; (iii) a similar process for making the polysilane (IV) by reacting (II) with the **Grignard** reagent obtained from the hydroxyl-protected halogenate d phenol derivative of formula (VII) to provide the protected polysilane (VIII) then deblocking to compound (VI).

USE - The polysilanes can be applied as starting material of engineering plastics including modified polycarbonate, resist material and electrophotographic photoreceptor material, particularly as hard-coating material.

ADVANTAGE - The said polysilanes can impart hardness to e.g. modified polycarbonate particularly bisphenol-A polycarbonate.

Member(0003)

ABEQ EP 1006141 A1 UPAB 20060114

Polysilanes of formula (I) are new. (I) R = H, alkyl, aryl, alkoxy, amino, or silyl; both R can be the same or different; position of OH = in the p- or m-position; n = 2-10,000. Also claimed are the following; (i) similar polysilanes of formula (VI); Y = CH2, C2H4, C3H6, C4H8, O, or S; (ii) a process for preparing a polysilane with phenyl groups at both terminals by reacting a polysilane halogenated at both terminals of formula (II) with a hydroxyl-protected halogenated phenol of formula (III) after producing its **Grignard** reagent via reaction with magnesium (Mg) to give a protected polysilane of formula (IV) then deprotection by reacting with acid to afford the polysilane (I); and (II), X = halo; R1 = hydroxyl-protecting group including alkyl, alkoxyalkyl, silyl, acyl, alkylthioalkyl or alkylsulphoxy; X1 = halo; (iii) a similar process for making the polysilane (IV) by reacting (II) with the **Grignard** reagent obtained from the hydroxyl-protected halogenate d phenol derivative of formula (VII) to provide the protected polysilane (VIII) then deblocking to compound (VI).

USE - The polysilanes can be applied as starting material of engineering plastics including modified polycarbonate, resist material and electrophotographic photoreceptor material, particularly as hard-coating material.

ADVANTAGE - The said polysilanes can impart hardness to e.g. modified polycarbonate particularly bisphenol-A polycarbonate.

Member(0004)

ABEQ JP 10530738 X UPAB 20060114

Polysilanes of formula (I) are new. (I) R = H, alkyl, aryl, alkoxy, amino, or silyl; both R can be the same or different; position of OH = in the p- or m-position; n = 2-10,000. Also claimed are the following; (i) similar polysilanes of formula (VI); Y = CH2, C2H4, C3H6, C4H8, O, or S; (ii) a process for preparing a polysilane with phenyl groups at both terminals by reacting a polysilane halogenated at both terminals of formula (II) with a hydroxyl-protected halogenated phenol of formula (III) after producing its **Grignard** reagent via reaction with magnesium (Mg) to give a protected polysilane of formula (IV) then deprotection by reacting with

acid to afford the polysilane (I); and (II), X = halo; R1 = hydroxyl-protecting group including alkyl, alkoxyalkyl, silyl, acyl, alkylthioalkyl or alkylsulphoxy; X1 = halo; (iii) a similar process for making the polysilane (IV) by reacting (II) with the **Grignard** reagent obtained from the hydroxyl-protected halogenate d phenol derivative of formula (VII) to provide the protected polysilane (VIII) then deblocking to compound (VI).

USE - The polysilanes can be applied as starting material of engineering plastics including modified polycarbonate, resist material and electrophotographic photoreceptor material, particularly as hard-coating material.

ADVANTAGE - The said polysilanes can impart hardness to e.g. modified polycarbonate particularly bisphenol-A polycarbonate.

Member(0006)
ABEQ JP 3177683 B2 UPAB 20060114

Polysilanes of formula (I) are new. (I) R = H, alkyl, aryl, alkoxy, amino, or silyl; both R can be the same or different; position of OH = in the p- or m-position; n = 2-10,000. Also claimed are the following; (i) similar polysilanes of formula (VI); Y = CH2, C2H4, C3H6, C4H8, O, or S; (ii) a process for preparing a polysilane with phenyl groups at both terminals by reacting a polysilane halogenated at both terminals of formula (II) with a hydroxyl-protected halogenated phenol of formula (III) after producing its **Grignard** reagent via reaction with magnesium (Mg) to give a protected polysilane of formula (IV) then deprotection by reacting with acid to afford the polysilane (I); and (II), X = halo; R1 = hydroxyl-protecting group including alkyl, alkoxyalkyl, silyl, acyl, alkylthioalkyl or alkylsulphoxy; X1 = halo; (iii) a similar process for making the polysilane (IV) by reacting (II) with the **Grignard** reagent obtained from the hydroxyl-protected halogenate d phenol derivative of formula (VII) to provide the protected polysilane (VIII) then deblocking to compound (VI).

USE - The polysilanes can be applied as starting material of engineering plastics including modified polycarbonate, resist material and electrophotographic photoreceptor material, particularly as hard-coating material.

ADVANTAGE - The said polysilanes can impart hardness to e.g. modified polycarbonate particularly bisphenol-A polycarbonate.

Member(0007)
ABEQ US 6255430 B1 UPAB 20060114

Polysilanes of formula (I) are new. (I) R = H, alkyl, aryl, alkoxy, amino, or silyl; both R can be the same or different; position of OH = in the p- or m-position; n = 2-10,000. Also claimed are the following; (i) similar polysilanes of formula (VI); Y = CH2, C2H4, C3H6, C4H8, O, or S; (ii) a process for preparing a polysilane with phenyl groups at both terminals by reacting a polysilane halogenated at both terminals of formula (II) with a hydroxyl-protected halogenated phenol of formula (III) after producing its **Grignard** reagent via reaction with magnesium (Mg) to give a protected polysilane of formula (IV) then deprotection by reacting with acid to afford the polysilane (I); and (II), X = halo; R1 = hydroxyl-protecting group including alkyl, alkoxyalkyl, silyl, acyl, alkylthioalkyl or alkylsulphoxy; X1 = halo; (iii) a similar process for making the polysilane (IV) by reacting (II) with the **Grignard** reagent obtained from the hydroxyl-protected halogenate d phenol derivative of formula (VII) to provide the protected polysilane (VIII) then deblocking to compound (VI).

USE - The polysilanes can be applied as starting material of engineering plastics including modified polycarbonate, resist material and electrophotographic photoreceptor material, particularly as hard-coating

material.

ADVANTAGE - The said polysilanes can impart hardness to e.g. modified polycarbonate particularly bisphenol-A polycarbonate.

DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L78 ANSWER 7 OF 39 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN

ACCESSION NUMBER: 1998-042363 [04] WPIX
DOC. NO. CPI: C1998-014266 [04]
DOC. NO. NON-CPI: N1998-033848 [04]
TITLE: Poly:silane positive hole transporting materials that exhibit excellent film-forming and hole transporting properties - are useful for making electrophotographic photoreceptors, organic electroluminescent devices, thin-film transistors and current-regulators
DERWENT CLASS: A26; A89; G08; P84; S06
INVENTOR: FUJIKI T; KAWASAKI S; MURASE H; NISHIDA R
PATENT ASSIGNEE: (OSAG-C) OSAKA GAS CO LTD
COUNTRY COUNT: 22

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
WO 9746916	A1	19971211	(199804)*	JA	31[4]		<--
EP 905567	A1	19990331	(199917)	EN			<--
CN 1221498	A	19990630	(199944)	ZH			<--
JP 10500428	X	19990824	(199944)	JA			<--
KR 2000016549	A	20000325	(200104)	KO	[4]		<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9746916 A1		**WO 1997-JP1927**	**19970606**
CN 1221498 A		**CN 1997-195222**	**19970606**
EP 905567 A1		**EP 1997-924334**	**19970606**
EP 905567 A1		**WO 1997-JP1927**	**19970606**
JP 10500428 X		**WO 1997-JP1927**	**19970606**
KR 2000016549 A		**WO 1997-JP1927**	**19970606**
JP 10500428 X		**JP 1998-500428**	**19970606**
KR 2000016549 A		**KR 1998-710139**	**19981207**

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 905567 A1	Based on	WO 9746916 A
JP 10500428 X	Based on	WO 9746916 A
KR 2000016549 A	Based on	WO 9746916 A

PRIORITY APPLN. INFO: **JP 1996-145952 19960607**
INT. PATENT CLASSIF.:
MAIN: G03G005-07
IPC RECLASSIF.: C08G0077-00 [I,C]; C08G0077-60 [I,A]; G03G0005-07 [I,A]; G03G0005-07 [I,C]

BASIC ABSTRACT:
WO 1997046916 A1 UPAB: 20050520

Positive hole transporting materials with film-forming and positive hole transporting properties are prepared with polysilanes of formula (I), where R1 = H or alkyl; and n = 10-20000.

Also claimed are similar materials prepared from polysilanes of formula (II), where R2, R3 = H, alkyl, aryl, alkoxy, amino or silyl; l = positive integer; m = 0 or positive integer; and l+m = 10-20000.

USE - The materials may be used to fabricate electrophotographic photoreceptors, organic electroluminescent devices, thin-film transistors and current-regulators.

ADVANTAGE - The materials have superior film-forming and positive hole transporting properties including flexibility and photoelectronic functions. No high vacuum setup is needed for fabrication of the required elements and there is no deterioration due to pigment crystallisation as in the prior-art materials which lower the productivity. MANUAL CODE: CPI: A06-A00E2; A06-A00E4; A12-E07C; A12-E11A; A12-L05B;
G06-F03A
EPI: S06-A01A1

Member(0002)
ABEQ EP 905567 A1 UPAB 20050520
Positive hole transporting materials with film-forming and positive hole transporting properties are prepared with polysilanes of formula (I), where R1 = H or alkyl; and n = 10-20000.
Also claimed are similar materials prepared from polysilanes of formula (II), where R2, R3 = H, alkyl, aryl, alkoxy, amino or silyl; l = positive integer; m = 0 or positive integer; and l+m = 10-20000.

USE - The materials may be used to fabricate electrophotographic photoreceptors, organic electroluminescent devices, thin-film transistors and current-regulators.

ADVANTAGE - The materials have superior film-forming and positive hole transporting properties including flexibility and photoelectronic functions. No high vacuum setup is needed for fabrication of the required elements and there is no deterioration due to pigment crystallisation as in the prior-art materials which lower the productivity.

Member(0003)
ABEQ CN 1221498 A UPAB 20050520
Positive hole transporting materials with film-forming and positive hole transporting properties are prepared with polysilanes of formula (I), where R1 = H or alkyl; and n = 10-20000.
Also claimed are similar materials prepared from polysilanes of formula (II), where R2, R3 = H, alkyl, aryl, alkoxy, amino or silyl; l = positive integer; m = 0 or positive integer; and l+m = 10-20000.

USE - The materials may be used to fabricate electrophotographic photoreceptors, organic electroluminescent devices, thin-film transistors and current-regulators.

ADVANTAGE - The materials have superior film-forming and positive hole transporting properties including flexibility and photoelectronic functions. No high vacuum setup is needed for fabrication of the required elements and there is no deterioration due to pigment crystallisation as in the prior-art materials which lower the productivity.

Member(0004)
ABEQ JP 10500428 X UPAB 20050520
Positive hole transporting materials with film-forming and positive hole transporting properties are prepared with polysilanes of formula (I), where R1 = H or alkyl; and n = 10-20000.
Also claimed are similar materials prepared from polysilanes of formula (II), where R2, R3 = H, alkyl, aryl, alkoxy, amino or silyl; l = positive integer; m = 0 or positive integer; and l+m = 10-20000.

USE - The materials may be used to fabricate electrophotographic photoreceptors, organic electroluminescent devices, thin-film transistors and current-regulators.

ADVANTAGE - The materials have superior film-forming and positive hole transporting properties including flexibility and photoelectronic functions. No high vacuum setup is needed for fabrication of the required elements and there is no deterioration due to pigment crystallisation as in the prior-art materials which lower the productivity.

L78 ANSWER 8 OF 39 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1998-042134 [04] WPIX
DOC. NO. CPI: C1998-014119 [04]
DOC. NO. NON-CPI: N1998-033707 [04]
TITLE: New poly:silanes for hole transporting materials - comprises specified formulae including substituted phenyl group
DERWENT CLASS: A26; A85; A89; G06; G08; L03; S06; U11; U12
INVENTOR: FUJIKI T; KAWASAKI S; MURASE H; NISHIDA R
PATENT ASSIGNEE: (OSAG-C) OSAKA GAS CO LTD
COUNTRY COUNT: 22

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
WO 9746605	A1	19971211	(199804)*	JA	42[10]		<--
EP 905172	A1	19990331	(199917)	EN			<--
CN 1221434	A	19990630	(199944)	ZH			<--
JP 10500429	X	19990824	(199944)	JA			<--
KR 2000034782	A	20000626	(200111)	KO			<--
JP 3843458	B2	20061108	(200673)	JA	14		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9746605	A1	**WO 1997-JP1928**	**19970606**
CN 1221434	A	**CN 1997-195243**	**19970606**
EP 905172	A1	**EP 1997-925289**	**19970606**
EP 905172	A1	**WO 1997-JP1928**	**19970606**
JP 10500429	X	**WO 1997-JP1928**	**19970606**
KR 2000034782	A	**WO 1997-JP1928**	**19970606**
JP 10500429	X	**JP 1998-500429**	**19970606**
KR 2000034782	A	**KR 1998-710138**	**19981207**
JP 3843458	B2	**WO 1997-JP1928**	**19970606**
JP 3843458	B2	**JP 1998-500429**	**19970606**

FILING DETAILS:

PATENT NO	KIND		PATENT NO	
EP 905172	A1	Based on	WO 9746605	A
JP 10500429	X	Based on	WO 9746605	A
KR 2000034782	A	Based on	WO 9746605	A
JP 3843458	B2	Based on	WO 9746605	A

PRIORITY APPLN. INFO: **JP 1996-146062 19960607**
INT. PATENT CLASSIF.:
MAIN: C08G077-60
IPC ORIGINAL: C08G0077-00 [I,C]; C08G0077-60 [I,A]; H01L0051-50 [I,A]; H01L0051-50 [I,C]
IPC RECLASSIF.: C08G0077-00 [I,C]; C08G0077-60 [I,A]
BASIC ABSTRACT:

WO 1997046605 A1 UPAB: 20050520
Polysilanes of formula (I) are new: (I)
where R = 3-20C n-alkyl, with R's being the same or different; R1 = H or alkyl, with R1's being the same or different; n = 10-20000. Also claimed are the following: (i) positive hole transporting materials made from polysilanes of formula (I) with film-formability and positive hole transporting characteristics; (ii) polysilanes of formula (II); where R2, R3 = H, alkyl, aryl, alkoxy, amino or silyl, with R1, R2 and R3 being the same or different; l = positive integer; m = 0 or positive integer; (iii) positive hole transporting materials made from polysilanes of formula (II) with film-formability and positive hole transporting characteristics.
USE - The polysilanes can be used as positive hole transporting materials (claimed) in electrophotographic photoreceptors, organic electroluminescent devices, thin-film transistors, current-regulating elements, and as photoresist materials.
ADVANTAGE - Such polysilanes possess excellent positive hole transporting characteristics, film-formability, flexibility and photoelectronic functions. No high vacuum setup is needed for fabrication of the required elements and there is no deterioration due to pigment crystallisation as in the prior-art materials of lower the productivity. MANUAL CODE: CPI: A06-A00E2; A06-A00E4; A12-E07C; A12-E11A; A12-L05B;
G06-F03A; L03-A02D
EPI: S06-A01A1; U11-A06A; U11-A08B; U11-A15; U12-B03A; U12-E01A9

Member(0002)
ABEQ EP 905172 A1 UPAB 20050520
Polysilanes of formula (I) are new: (I)
where R = 3-20C n-alkyl, with R's being the same or different; R1 = H or alkyl, with R1's being the same or different; n = 10-20000. Also claimed are the following: (i) positive hole transporting materials made from polysilanes of formula (I) with film-formability and positive hole transporting characteristics; (ii) polysilanes of formula (II); where R2, R3 = H, alkyl, aryl, alkoxy, amino or silyl, with R1, R2 and R3 being the same or different; l = positive integer; m = 0 or positive integer; (iii) positive hole transporting materials made from polysilanes of formula (II) with film-formability and positive hole transporting characteristics.
USE - The polysilanes can be used as positive hole transporting materials (claimed) in electrophotographic photoreceptors, organic electroluminescent devices, thin-film transistors, current-regulating elements, and as photoresist materials.
ADVANTAGE - Such polysilanes possess excellent positive hole transporting characteristics, film-formability, flexibility and photoelectronic functions. No high vacuum setup is needed for fabrication of the required elements and there is no deterioration due to pigment crystallisation as in the prior-art materials of lower the productivity.

Member(0003)
ABEQ CN 1221434 A UPAB 20050520
Polysilanes of formula (I) are new: (I)
where R = 3-20C n-alkyl, with R's being the same or different; R1 = H or alkyl, with R1's being the same or different; n = 10-20000. Also claimed are the following: (i) positive hole transporting materials made from polysilanes of formula (I) with film-formability and positive hole transporting characteristics; (ii) polysilanes of formula (II); where R2, R3 = H, alkyl, aryl, alkoxy, amino or silyl, with R1, R2 and R3 being the same or different; l = positive integer; m = 0 or positive integer; (iii) positive hole transporting materials made from polysilanes of formula (II) with film-formability and positive hole transporting characteristics.
USE - The polysilanes can be used as positive hole transporting

materials (claimed) in electrophotographic photoreceptors, organic electroluminescent devices, thin-film transistors, current-regulating elements, and as photoresist materials.

ADVANTAGE - Such polysilanes possess excellent positive hole transporting characteristics, film-formability, flexibility and photoelectronic functions. No high vacuum setup is needed for fabrication of the required elements and there is no deterioration due to pigment crystallisation as in the prior-art materials of lower the productivity.

Member(0004)
ABEQ JP 10500429 X UPAB 20050520

Polysilanes of formula (I) are new: (I)
where R = 3-20C n-alkyl, with R's being the same or different; R1 = H or alkyl, with R1's being the same or different; n = 10-20000. Also claimed are the following: (i) positive hole transporting materials made from polysilanes of formula (I) with film-formability and positive hole transporting characteristics; (ii) polysilanes of formula (II); where R2, R3 = H, alkyl, aryl, alkoxy, amino or silyl, with R1, R2 and R3 being the same or different; l = positive integer; m = 0 or positive integer; (iii) positive hole transporting materials made from polysilanes of formula (II) with film-formability and positive hole transporting characteristics.

USE - The polysilanes can be used as positive hole transporting materials (claimed) in electrophotographic photoreceptors, organic electroluminescent devices, thin-film transistors, current-regulating elements, and as photoresist materials.

ADVANTAGE - Such polysilanes possess excellent positive hole transporting characteristics, film-formability, flexibility and photoelectronic functions. No high vacuum setup is needed for fabrication of the required elements and there is no deterioration due to pigment crystallisation as in the prior-art materials of lower the productivity.

L78 ANSWER 9 OF 39 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1997-524736 [48] WPIX
DOC. NO. CPI: C1997-166890 [48]
TITLE: Two stage preparation of methyl:phenyl:di:chloro:silane - by reacting magnesium with chloro:benzene in a mixed xylene ethylene:glycol ester solvent, then reacting phenyl:magnesium chloride with methyl:tri:chloro:silane
DERWENT CLASS: A41; E11; G02
INVENTOR: MATVEEV L G; NATEIKINA L I; SHKURO V G
PATENT ASSIGNEE: (KHIM-R) KHIMPROM STOCK CO
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
RU 2079501	C1	19970520	(199748)*	RU	4[0]		<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
RU 2079501	C1	**RU 1995-111422**	**19950703**

PRIORITY APPLN. INFO: **RU 1995-111422 19950703**
INT. PATENT CLASSIF.:
IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-14 [I,A]
BASIC ABSTRACT:
RU 2079501 C1 UPAB: 20050519

The **methylphenyldichlorosilane** is prepared by reacting magnesium with chlorobenzene in a mixture of xylene and dialkyl esters of ethyleneglycol or diethyleneglycol, in molar ratios of ester:chlorobenzene = (0.7-1.2):1, at increased temperature followed by reaction of the resulting **phenylmagnesium chloride** with **methyltrichlorosilane.**

USE - The compound is used as an intermediate in the preparation of heat resistant paints, resins, and rubbers.

ADVANTAGE - The method gives increased yields of 73.0-74.8% (cf. 37-50% for known method using ether or a hydrocarbon solvent). MANUAL CODE: CPI: A01-A03; A06-A00E1; A12-B01C; E05-E01; G02-A01A

L78 ANSWER 10 OF 39 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1996-461332 [46] WPIX
DOC. NO. CPI: C1996-144596 [46]
DOC. NO. NON-CPI: N1996-388884 [46]
TITLE: Silicon-containing phenol cpd. - used as component of positive type resist, for fine fabrication.
DERWENT CLASS: E11; G07; P84
INVENTOR: KANBARA H; UEDA T; UMEMURA M
PATENT ASSIGNEE: (SHIE-C) SHINETSU CHEM IND CO LTD
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
JP 08231559	A	19960910	(199646)*	JA	10[0]		<--
JP 3087597	B2	20000911	(200046)	JA	10		<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 08231559 A		**JP 1995-61643**	**19950224**
JP 3087597 B2		**JP 1995-61643**	**19950224**

FILING DETAILS:

PATENT NO	KIND	PATENT NO
JP 3087597 B2	Previous Publ	JP 08231559 A

PRIORITY APPLN. INFO: **JP 1995-61643 19950224**
INT. PATENT CLASSIF.:
IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-08 [I,A]; C07F0007-18 [I,A]; G03F0007-039 [I,A]; G03F0007-039 [I,C]; G03F0007-075 [I,A]; G03F0007-075 [I,C]

BASIC ABSTRACT:

JP 08231559 A UPAB: 20050514

Phenol cpd. is of formula (I); n = 1 or 2; X (if n = 1) = OH, 2-4C alkenyl, 2-4C alkoxy, 6-10C aryloxy, etc. X (if n = 2) = OH, 1-4C alkyl, 2-4C alkenyl, 2-4C alkoxy, 6-10C aryl, 6-10C aryloxy, etc. Y = OH, 1-4C alkyl, 2-4C alkenyl, 2-4C alkoxy, 6-10C aryl, 6-10C aryloxy.

USE - Used in a component of a positive type resist, for fine fabrication.

ADVANTAGE - Prod. is a chemically amplified positive type resist for fine fabrication and has satisfactory resolution. MANUAL CODE: CPI: E05-E01; G06-D04; G06-F; G06-F03D

Member(0002)

ABEQ JP 3087597 B2 UPAB 20050514
Phenol cpd. is of formula (I); n = 1 or 2; X (if n = 1) = OH, 2-4C alkenyl, 2-4C alkoxy, 6-10C aryloxy, etc. X (if n = 2) = OH, 1-4C alkyl, 2-4C alkenyl, 2-4C alkoxy, 6-10C aryl, 6-10C aryloxy, etc. Y = OH, 1-4C alkyl, 2-4C alkenyl, 2-4C alkoxy, 6-10C aryl, 6-10C aryloxy.
USE - Used in a component of a positive type resist, for fine fabrication.
ADVANTAGE - Prod. is a chemically amplified positive type resist for fine fabrication and has satisfactory resolution.
DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L78 ANSWER 11 OF 39 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1995-371168 [48] WPIX
DOC. NO. CPI: C1995-160935 [48]
DOC. NO. NON-CPI: N1995-273795 [48]
TITLE: Phenyl-substd. (alkyl) di:halo:silane cpds. and poly:isolane cpds. produced therefrom - are used as starting materials in silicon chemistry, resist materials, electrophotographic materials, optical and electronic materials, etc.
DERWENT CLASS: E11; G06; L03; S06
INVENTOR: KASHIWAMURA S; KAWASAKI S; MURASE H; NISHIDA R; SHONO T
PATENT ASSIGNEE: (OSAG-C) OSAKA GAS CO LTD; (SHON-I) SHONO T
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
JP 07252272	A	19951003	(199548)*	JA	19[8]		<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 07252272	A	**JP 1994-41474**	**19940311**

PRIORITY APPLN. INFO: **JP 1994-41474 19940311**
INT. PATENT CLASSIF.:
IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-12 [I,A]; C08G0077-00 [I,C]; C08G0077-48 [I,A]; C08G0077-60 [I,A]; C25B0003-00 [I,A]; C25B0003-00 [I,C]

BASIC ABSTRACT:
JP 07252272 A UPAB: 20060110
Dihalosilane of formula (I) in which two OH gps. are protected with catechol gp. is new. R1 = H, alkyl, aryl, alkoxy or amino; R = saturated hydrocarbon; X = halogen; m = 0-10; two OH gps. are located at meta or para-position each other. Also claimed is a polysilane of formula (IV) or formula (V). m = 1-10; n - 10-10,000.
USE - The organic silicone cpd. is useful as a starting material of silicon chemistry, a resist material, an electrophotographic material, an optical and electronic material, etc..
ADVANTAGE - The introduction of the catechol gp. as the substituent of a polysilane imparts a higher solubility to an aqueous alkaline solution then the conventional phenol gp.-containing polysilane. The silicone cpds. can be produced easily with safety on an industrial scale, because an alkali metal is not used. The molecular weight of the produced polysilane can be controlled by controlling the quantity of electricity. MANUAL CODE: CPI: E05-E; G06-F03C; G06-F06; L03-H
EPI: S06-A01A1
DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L78 ANSWER 12 OF 39 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1995-317548 [41] WPIX
DOC. NO. CPI: C1995-141000 [41]
DOC. NO. NON-CPI: N1995-239470 [41]
TITLE: Mfg. poly(phenyl:silylene ethynyl:ene-1,3-phenylene ethynyl:ene) - comprises reacting di:chloro:phenyl:silane and organo:metallic reagent in solvent
DERWENT CLASS: A26; A85; A89; L03; V07; X12
INVENTOR: INOUE K; ITO M; IWATA K; MITSUZUKA M
PATENT ASSIGNEE: (MITK-C) MITSUI TOATSU CHEM INC
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
JP 07216093	A	19950815	(199541)*	JA	10[2]		<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 07216093 A		**JP 1994-6791**	**19940126**

PRIORITY APPLN. INFO: **JP 1994-6791 19940126**
INT. PATENT CLASSIF.:
IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-08 [I,A]; C08G0077-00 [I,C]; C08G0077-48 [I,A]; C08G0077-60 [I,A]

BASIC ABSTRACT:

JP 07216093 A UPAB: 20060110

Mfr. of poly(phenylsilylene ethynylene-1,3-phenylene ethynylene) bearing a repeating unit of formula (I) comprises reacting **dichlorophenylsilane** (C6H5SiCl2H) and an organometallic reagent of m-diethynylbenzene in the presence of solvent containing no active hydrogens.

USE - Useful as organic electroconductive materials and organic optical nonlinear materials.

ADVANTAGE - The polymers have excellent heat and flame resistance, and are mfd. economically.

MANUAL CODE: CPI: A06-A00A; A09-A02; A09-A03; A10-D; L03-A02D; L03-D01D
EPI: V07-K10B; X12-D01C

L78 ANSWER 13 OF 39 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1995-276611 [37] WPIX
DOC. NO. CPI: C1995-125400 [37]
DOC. NO. NON-CPI: N1995-211546 [37]
TITLE: New sulphonium salts for chemically amplified positive resist compsns. - which are not deactivated by basic cpds. in air between exposure and development, and which can form fine patterns.
DERWENT CLASS: A89; E13; E14; G06; L03; P84; V04
INVENTOR: ISHIHARA T; MARUYAMA K; OHSAWA Y; OSAWA Y; SHIMADA J; TAKEMURA K; WATANABE S
PATENT ASSIGNEE: (SHIE-C) SHINETSU CHEM CO LTD; (SHIE-C) SHINETSU CHEM IND CO LTD
COUNTRY COUNT: 8

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
EP 667338	A1	19950816	(199537)*	EN	17[0]		<--
JP 07252214	A	19951003	(199548)	JA	12[0]		<--
US 5569784	A	19961029	(199649)	EN	10[0]		<--
EP 667338	B1	19980107	(199806)	EN	17[0]		<--
DE 69501341	E	19980212	(199812)	DE			<--
JP 2874579	B2	19990324	(199917)	JA	12		<--
KR 230971	B1	19991115	(200111)	KO			<--
TW 482942	A	20020411	(200313)	ZH			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 667338 A1		**EP 1995-100997**	**19950125**
JP 07252214 A		**JP 1995-19844**	**19950112**
JP 2874579 B2		**JP 1995-19844**	**19950112**
KR 230971 B1		**KR 1995-1035**	**19950121**
DE 69501341 E		**DE 1995-69501341**	**19950125**
EP 667338 B1		**EP 1995-100997**	**19950125**
DE 69501341 E		**EP 1995-100997**	**19950125**
US 5569784 A		**US 1995-379987**	**19950127**
TW 482942 A		**TW 1995-102674**	**19950320**

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 69501341 E	Based on	EP 667338 A
JP 2874579 B2	Previous Publ	JP 07252214 A

PRIORITY APPLN. INFO: **JP 1994-26170 19940128**

INT. PATENT CLASSIF.:

MAIN: C07C381-12; G03F007-028

IPC RECLASSIF.: C07C0381-00 [I,C]; C07C0381-00 [I,C]; C07C0381-12 [I,A]; C07C0381-12 [I,A]; C08K0005-00 [I,C]; C08K0005-36 [I,A]; G03F0007-004 [I,A]; G03F0007-004 [I,A]; G03F0007-004 [I,C]; G03F0007-004 [I,C]; G03F0007-039 [I,A]; G03F0007-039 [N,A]; G03F0007-039 [I,C]; G03F0007-039 [N,C]; H05K0003-02 [I,C]; H05K0003-06 [I,A]; H05K0003-06 [I,C]; H05K0003-08 [I,A]

BASIC ABSTRACT:

EP 667338 A1 UPAB: 20050824

New sulphonium salts have the formula (I):

(where R1-R3 = (subst.) aromatic; provided that: (i) at least one is a subst. aromatic gp. that has an acid-labile gp. and at least one of the others is a nitrogenous aromatic gp.; or (ii) all three are nitrogenous aromatic gps). Also claimed are: (1) a chemically amplified, positive resist compsn. comprising the above sulphonium salt; (2) a chemically amplified, positive resist compsn. comprising: (a) an organic solvent; (b) an alkali-soluble resin; (c) a dissolution inhibitor having acid-labile gps.; (d) the above sulphonium salt; and (e) a photo-acid-generator; and (3) a chemically amplified, positive resist compsn.comprising (2) above less component (e).

USE - The new cpds. are used to make chemically amplified, positive resist compsns. (claimed) suitable for the fine-line patterning techniques with pattern rules below 0.5 μm created by deep UV light or electron beams.

ADVANTAGE - Resist compsns. containing the new cpds. are not subject to deactivation by basic cpds. in the air, and so they do not form an insol. surface

layer and they are not subject to the 'T-top configuration' and Post Exposure Delay problems of prior art compsns. The cpds. are compatible with other components of the resist and disperse uniformly and reproducibly. The presence of an acid-labile gp. enhances contrast. MANUAL CODE: CPI: A08-M08; A12-L02E; E07-D04C; E10-A01; G06-D03;
G06-D04; G06-D06; G06-F03C; G06-F03D; L04-C05
EPI: V04-R01A1

Member(0002)
ABEQ JP 07252214 A UPAB 20050824
Sulphonium salt (formula (1)) is new. R1-S+(R3)-R2 -O3SCF3 (1) R1, R2 and R3 = aromatic gps. at least one of R1, R2 and R3 has an unstable gp. for acid and at least one of remaining gps. have nitrogen-contg. aromatic gp.. And also claimed is that chemical amplification positive resist material (II) which is contg. formula (1), esp. chemical amplification positive resist material (II') which is contg. an organic solvent (A), alkali-soluble resin (B), a soln-. inhibitor (C) which has unstable gp. for acid, formula (1) with/without an acid-producing agent (E), are new. Formula is prepd. by reaction of a prod. which is given by reaction of sulphoxide R1-SO-R2 (3) with trimethylsilyltriphlate ((CH3)3SiO3SCF3) at -78 - 0 deg.C. for 10-60 minutes in base, with an aryl-**Grignard** reagent at 0-40 deg.C. for 0.5-2 hrs. in an organic solvent. Bis(p-tert-butoxyphenyl)(p-dimethylaminophenyl)sulphonium trifluoromethanesulphonate (formula (1')) or (p-tert-butoxyphenyl)bis(p-dimethylaminophenyl)sulphonium trifluoromethanesulphonate etc. is used as formula (1). Trimethylsilyltriphalate and an aryl-**Grignard** reagent are used in the range of 1-2 mol. excess amt. and 1-3 mol. excess amt. to formula (2), respectively. (ii)' is contg. (**A**) (**150**-700 pts.wt. pref. 250-500 pts.wt.), (B) (70-90 pts.wt. pref. 75-85 pts.wt.), (C) 0-40 pts.wt. pref. 10-25 pts.wt.) formula (1) (0.1-5 pts.wt. pref. 0.8-4 pts.wt.) with/without (E) 0.15 pts.wt. pref. 2-8 pts.wt.). Cyclohexanone is used as (A). Polyhydroxystyrene pref. partial substd. polyhydroxystyrene with tert-butyl gp. etc., whose molecular wt. in average, is 5,000-100,000 is used as (B). Copolymer of p-butoxystyrene and t-butylacrylate etc., is used as (C).

USE/ADVANTAGE - Formula (1) is a useful material as a new material for chemical amplification positive resist materials in micro fabrication technique. Both of (II) and (II)' induce high energy ray esp. KrF excimer laser. And both of (II) and (II)' show excellent sensitivity, plasma etching resistance and excellent thermal stability of resist pattern. Both of (II) and (II)' can be useful materials as chemical amplification positive resist materials due to long stability for post exposure delay (PED). By this method formula (1) is given in high yield (32-40%) and in high purity (98-99%).

Member(0004)
ABEQ EP 667338 B1 UPAB 20050824
New sulphonium salts have the formula R1R2R3S+ -O3SCF3 (I): (where R1-R3 = (subst.) aromatic; provided that: (i) at least one is a subst. aromatic gp. that has an acid-labile gp. and at least one of the others is a nitrogenous aromatic gp.; or (ii) all three are nitrogenous aromatic gps). Also claimed are: (1) a chemically amplified, positive resist compsn. comprising the above sulphonium salt; (2) a chemically amplified, positive resist compsn. comprising: (a) an organic solvent; (b) an alkali-sol. resin; (c) a dissolution inhibitor having acid-labile gps.; (d) the above sulphonium salt; and (e) a photo-acid-generator; and (3) a chemically amplified, positive resist compsn.comprising (2) above less component (e).

USE - The new cpds. are used to make chemically amplified, positive resist compsns. (claimed) suitable for the fine-line patterning techniques

with pattern rules below 0.5 μm created by deep UV light or electron beams.

ADVANTAGE - Resist compsns. contg. the new cpds. are not subject to deactivation by basic cpds. in the air, and so they do not form an insol. surface layer and they are not subject to the 'T-top configuration' and Post Exposure Delay problems of prior art compsns. The cpds. are compatible with other components of the resist and disperse uniformly and reproducibly. The presence of an acid-labile gp. enhances contrast.

Member(0006)
ABEQ JP 2874579 B2 UPAB 20050824

New sulphonium salts have the formula (I):
(where R1-R3 = (subst.) aromatic; provided that: (i) at least one is a subst. aromatic gp. that has an acid-labile gp. and at least one of the others is a nitrogenous aromatic gp.; or (ii) all three are nitrogenous aromatic gps). Also claimed are: (1) a chemically amplified, positive resist compsn. comprising the above sulphonium salt; (2) a chemically amplified, positive resist compsn. comprising: (a) an organic solvent; (b) an alkali-sol. resin; (c) a dissolution inhibitor having acid-labile gps.; (d) the above sulphonium salt; and (e) a photo-acid-generator; and (3) a chemically amplified, positive resist compsn.comprising (2) above less component (e).

USE - The new cpds. are used to make chemically amplified, positive resist compsns. (claimed) suitable for the fine-line patterning techniques with pattern rules below 0.5 μm created by deep UV light or electron beams.

ADVANTAGE - Resist compsns. contg. the new cpds. are not subject to deactivation by basic cpds. in the air, and so they do not form an insol. surface layer and they are not subject to the 'T-top configuration' and Post Exposure Delay problems of prior art compsns. The cpds. are compatible with other components of the resist and disperse uniformly and reproducibly. The presence of an acid-labile gp. enhances contrast.

L78 ANSWER 14 OF 39 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1996-344440 [35] WPIX
DOC. NO. CPI: C1996-109424 [35]
TITLE: Novel organic silicon cpd. and its preparation - by reacting silane cpd. with **Grignard** reagent in the presence of cyano cpd. and/or thio:cyanic acid cpd.
DERWENT CLASS: A41; A60; E11
INVENTOR: INOUE T; ISOGAI K; TAKEUCHI T
PATENT ASSIGNEE: (ELED-C) DENKI KAGAKU KOGYO KK
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
JP 06321960	A	19941122	(199635)*	JA	4[0]		<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 06321960	A	**JP 1993-111904**	**19930513**

PRIORITY APPLN. INFO: **JP 1993-111904 19930513**
INT. PATENT CLASSIF.:
IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-08 [I,A]; C08F0030-00 [I,C]; C08F0030-08 [I,A]; C08K0005-00 [I,C]; C08K0005-54 [I,A];

C08K0005-5425 [I,A]

BASIC ABSTRACT:

JP 06321960 A UPAB: 20050512

A novel organic silicon cpd. of formula (I) is new. A1, A2 = H or lower alkyl; and at least Y1 or Y2 is aryl and the other is aryl or lower alkyl.

Also claimed is preparation of cpd. (I) which comprises reacting a silane cpd. of formula SiX1X2Y1Y2 (II) (Z = halogen) with **Grignard** reagent of formula (III) in the presence of a cyano cpd. and/or thiocyanic acid cpd.

USE - The silicon cpd. is suitable as a silane coupling agent, silylating agent, a modifier for polymer cpds., a crosslinking agent, monomer for polymerising polymer cpds., raw material for other organic silicon cpds., etc.

ADVANTAGE - Cpd. (I) contains Si-phenyl gp. bond and two substd. 1,3-butadienyl gps. and therefor has high reactivity. MANUAL CODE: CPI: A01-A03; A01-B03; A08-C07; A08-M01D; E05-E01

L78 ANSWER 15 OF 39 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN

ACCESSION NUMBER: 1994-295739 [37] WPIX

DOC. NO. CPI: C1994-134828 [37]

TITLE: Poly(silylene ethynylene phenylene ethylene) with no defect in the main chain - due to branching or crosslinking, giving improved heat- and burning resistance, etc

DERWENT CLASS: A26; L03

INVENTOR: INOUE K; ITO M; IWATA K; MITSUZUKA M; UCHIUMI T; UTSUMI T

PATENT ASSIGNEE: (MITA-C) MITSUI CHEM INC; (MITK-C) MITSUI TOATSU CHEM INC

COUNTRY COUNT: 3

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
EP 617073	A2	19940928	(199437)*	EN	45[12]		<--
JP 07102069	A	19950418	(199524)	JA	28		<--
US 5420238	A	19950530	(199527)	EN	33[12]		<--
EP 617073	A3	19941019	(199534)	EN			<--
EP 617073	B1	19981209	(199902)	EN			<--
DE 69415062	E	19990121	(199909)	DE			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 617073 A2		**EP 1994-302078**	**19940323**
JP 07102069 A		**JP 1994-42310**	**19940314**
DE 69415062 E		**DE 1994-69415062**	**19940323**
EP 617073 A3		**EP 1994-302078**	**19940323**
EP 617073 B1		**EP 1994-302078**	**19940323**
DE 69415062 E		**EP 1994-302078**	**19940323**
US 5420238 A		**US 1994-216549**	**19940323**

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 69415062 E	Based on	EP 617073 A

PRIORITY APPLN. INFO: **JP 1993-201399 19930813**
JP 1993-64893 19930324
JP 1993-64894 19930324

JP 1993-69661 19930329
JP 1993-176421 19930716

INT. PATENT CLASSIF.:
MAIN: C08G077-60
IPC RECLASSIF.: C08G0077-00 [I,C]; C08G0077-00 [I,C]; C08G0077-48 [I,A]; C08G0077-60 [I,A]; C08G0077-60 [I,A]

BASIC ABSTRACT:

EP 617073 A2 UPAB: 20060109

A poly(silylene ethynylene phenylene ethylene) having repeating unit of formula (I) is new. The phenylene gp. is in o-, m- or p- form; R = halogen, 1-20C alkyl, 1-20C alkoxy, 6-20C phenoxy, 2-20C alkenyl, 2-20C alkynyl, 6-20C aromatic, 2-20C disubstd. amino or 1-10C silanyl; n = 0-4; and R' = H, 1-20C alkyl, 2-20C alkenyl, or 6-20C aromatic when the phenylene is in o- or p- form; or R' = H, 1-20C alkyl, 2-20C alkenyl, 2-20C alkynyl, or 7-20C aromatic, when the phenylene gp. is in m- form and n = 0; or R' = H, 1-20C alkyl, 2-20C alkenyl, 2-20C alkynyl, or 6-20C aromatic, when the phenylene gp. is in m form and n = 1-4; provided that H linked to C atoms of R and R' may be substd. with halogen, alkoxy, phenoxy, disubstd. amino or silanyl.

Also claimed are (i) a poly(silylene ethynylene -1,3-phenylene ethylene) (I; R = H, R' = H; phenylene meta); (ii) methods of mfg. the polymers (see CLAIMED METHODS below); and (iii)a hardened prod. obtd. by heating the polymers at 50-700 ° C.

USE - The polymers are useful as heat- and burning-resistant polymers, conductive polymers and a material for luminescent and non-linear elements.

ADVANTAGE - The polymers may be prepared free from structural defects in the main polymer chain due to branching or cross-linking, giving improved props.

MANUAL CODE: CPI: A06-A00B; A10-D; A11-C02; A12-L03; L03-A02D; L03-D01D

Member(0002)
ABEQ JP 07102069 A UPAB 20060109

A poly(silylene ethynylene phenylene ethylene) having repeating unit of formula (I) is new. The phenylene gp. is in o-, m- or p- form; R = halogen, 1-20C alkyl, 1-20C alkoxy, 6-20C phenoxy, 2-20C alkenyl, 2-20C alkynyl, 6-20C aromatic, 2-20C disubstd. amino or 1-10C silanyl; n = 0-4; and R' = H, 1-20C alkyl, 2-20C alkenyl, or 6-20C aromatic when the phenylene is in o- or p- form; or R' = H, 1-20C alkyl, 2-20C alkenyl, 2-20C alkynyl, or 7-20C aromatic, when the phenylene gp. is in m- form and n = 0; or R' = H, 1-20C alkyl, 2-20C alkenyl, 2-20C alkynyl, or 6-20C aromatic, when the phenylene gp. is in m form and n = 1-4; provided that H linked to C atoms of R and R' may be substd. with halogen, alkoxy, phenoxy, disubstd. amino or silanyl.

Also claimed are (i) a poly(silylene ethynylene -1,3-phenylene ethylene) (I; R = H, R' = H; phenylene meta); (ii) methods of mfg. the polymers (see CLAIMED METHODS below); and (iii)a hardened prod. obtd. by heating the polymers at 50-700 ° C.

USE - The polymers are useful as heat- and burning-resistant polymers, conductive polymers and a material for luminescent and non-linear elements.

ADVANTAGE - The polymers may be prepd. free from structural defects in the main polymer chain due to branching or cross-linking, giving improved props.

Member(0003)
ABEQ US 5420238 A UPAB 20060109

The poly(silyleneethynylene phenylene-ethynylene) has a repeated unit of general formula (I) and is prepd. by alternately condensing dichlorosilanes through the reaction in the presence of an organic Mg reagent such as a **Grignard** reagent.

The phenylene gp. may be in the ortho-, meta- or para-form; R is halogen,

1-10C alkyl, 1-20C alkoxy, 6-20C phenoxy, 2-20C alkenyl, 2-20C alkynyl, 6-20C aromatic gp., a disubstd. 2-20C amino gp. or 1-10C silanyl gp., provided that the H-atoms linked to the C-atoms of R may (partially) be replaced with halogen, alkoxy, phenoxy, disubstd. amino or silanyl gps.; n is 0-4; R' is H, 1-20C alkyl, 2-20C alkenyl, 1-10C alkynyl or 6-20C aromatic gp. when the phenylene gp. is in the ortho- or para-form, or R' is H, 1-20C alkyl, 2-20C alkenyl, 2-20C alkynyl or 7-20C aromatic gp. when the phenylene gp. is in the meta-form and n is O, or R' is H, 1-20C alkyl, 1-10C alkenyl, or, 2-10C alkynyl or 6-20C aromatic gp. when the phenylene gp. is in the meta-form and n is 1-4, provided that the H atoms linked to the C atoms of R' may (partially) be replaced with halogen, alkoxy, phenoxy, disubstd., amino or silanyl gps.

USE/ADVANTAGE - Heat resistant polymers. Improved heat and burn resistance are obtained.

Member(0005)
ABEQ EP 617073 B1 UPAB 20060109

A poly(silylene ethynylene phenylene ethylene) having repeating unit of formula (I) is new. The phenylene gp. is in o-, m- or p- form; R = halogen, 1-20C alkyl, 1-20C alkoxy, 6-20C phenoxy, 2-20C alkenyl, 2-20C alkynyl, 6-20C aromatic, 2-20C disubstd. amino or 1-10C silanyl; n = 0-4; and R' = H, 1-20C alkyl, 2-20C alkenyl, or 6-20C aromatic when the phenylene is in o- or p- form; or R' = H, 1-20C alkyl, 2-20C alkenyl, 2-20C alkynyl, or 7-20C aromatic, when the phenylene gp. is in m- form and n = 0; or R' = H, 1-20C alkyl, 2-20C alkenyl, 2-20C alkynyl, or 6-20C aromatic, when the phenylene gp. is in m form and n = 1-4; provided that H linked to C atoms of R and R' may be substd. with halogen, alkoxy, phenoxy, disubstd. amino or silanyl.

Also claimed are (i) a poly(silylene ethynylene -1,3-phenylene ethylene) (I; R = H, R' = H; phenylene meta); (ii) methods of mfg. the polymers (see CLAIMED METHODS below); and (iii)a hardened prod. obtd. by heating the polymers at 50-700 ° C.

USE - The polymers are useful as heat- and burning-resistant polymers, conductive polymers and a material for luminescent and non-linear elements.

ADVANTAGE - The polymers may be prepd. free from structural defects in the main polymer chain due to branching or cross-linking, giving improved props.

L78 ANSWER 16 OF 39 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1994-265898 [33] WPIX
DOC. NO. CPI: C1994-121576 [33]
DOC. NO. NON-CPI: N1994-209247 [33]
TITLE: Optically active organo:silicon cpds. and organo:poly:silane(s) - used as a new type of enantio-recognitive material and polymer standard material in one-dimensional semiconductor quantum wire structures
DERWENT CLASS: A26; A85; E11; L03; U11
INVENTOR: FUJIKI M
PATENT ASSIGNEE: (FUJI-I) FUJIKI M; (NITE-C) NIPPON TELEGRAPH & TELEPHONE CORP
COUNTRY COUNT: 4

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
EP 612756	A1	19940831	(199433)*	EN	66[47]		<--
JP 06306087	A	19941101	(199503)	JA	27		<--

JP 07033784	A	19950203 (199515)	JA	11	<--
US 5710301	A	19980120 (199810)	EN	50[0]	<--
EP 612756	B1	19990428 (199921)	EN		<--
DE 69418077	E	19990602 (199928)	DE		<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION DATE
EP 612756 A1		**EP 1994-400377 19940222**
JP 07033784 A		**JP 1993-202474 19930726**
JP 06306087 A		**JP 1993-202528 19930726**
US 5710301 A		**US 1994-198787 19940218**
DE 69418077 E		**DE 1994-69418077 19940222**
EP 612756 B1		**EP 1994-400377 19940222**
DE 69418077 E		**EP 1994-400377 19940222**

FILING DETAILS:

PATENT NO	KIND	PATENT NO
DE 69418077 E	Based on	EP 612756 A

PRIORITY APPLN. INFO: **JP 1993-202474 19930726**
JP 1993-56321 19930223
JP 1993-202528 19930726

INT. PATENT CLASSIF.:
MAIN: C07F007-12
IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-00 [I,C]; C07F0007-08 [I,A]; C07F0007-12 [I,A]; C07F0007-12 [I,A]; C08G0077-00 [I,C]; C08G0077-00 [I,C]; C08G0077-48 [I,A]; C08G0077-60 [I,A]; C08G0077-60 [I,A]

BASIC ABSTRACT:

EP 612756 A1 UPAB: 20050509

An organosilicon cpd. possessing a beta-branched alkyl gp. or a beta-branched aralkyl gp. of formula (I) is new. R1 = methyl or ethyl gp.; and R2 = 1-18C alkyl or aryl gp..

USE - The optically active organosilicon cpds. are useful as a new type of enantio-recognitive material and the organosilicons are useful as a high standard material in one-dimensional semiconductor quantum wire structures. - In an example, to a mixture of 125 ml anhydrous THF, 9.5g Mg and molecular sieves 4A was added a small amount of iodine. 4.5g (S)-(+)-1-bromo-2-methylbutane was added dropwise followed by 36g (S)-(+)-1-chloro-2-methylbutane and the mixture was brought to reflux. After the reaction was complete, the obtd. **Grignard** reagent was transferred to a dropping funnel. The **Grignard** reagent was added dropwise to a solution containing 80g **methyltrichlorosilane** in 150 ml anhydrous diethyl ether at 2-5 deg.C.. The mixture was stirred overnight at room temperature and 500 ml hexane was added, the reaction mixture was filtered and the filtrate was fractionally distilled to provide 20.5g of methyl((S)-2-methylbutyl)dichlorosilane. B.pt. was 78-79 deg.C. at 20 mmHg; 26Si-NMR showed at peak at 32.5 ppm.; and 13C NMR showed peaks at 32.3, 30.3, 29.4, 21.7, 11.1 and 6.5 ppm. MANUAL CODE: CPI: A06-A00E2; A09-A02A; A12-E07C; E05-E01; E05-E02C; E05-E02D; L04-A04; L04-C10F
EPI: U11-A01A

Member(0002)
ABEQ JP 06306087 A UPAB 20050509
An organosilicon cpd. possessing a beta-branched alkyl gp. or a beta-branched aralkyl gp. of formula (I) is new. R1 = methyl or ethyl gp.; and R2 = 1-18C alkyl or aryl gp..

USE - The optically active organosilicon cpds. are useful as a new type of enantio-recognitive material and the organosilicons are useful as a high standard material in one-dimensional semiconductor quantum wire structures. - In an example, to a mixt. of 125 ml anhydrous THF, 9.5g Mg and molecular sieves 4A was added a small amt. of iodine. 4.5g (S)-(+)-1-bromo-2-methylbutane was added dropwise followed by 36g (S)-(+)-1-chloro-2-methylbutane and the mixt. was brought to reflux. After the reaction was complete, the obtd. **Grignard** reagent was transferred to a dropping funnel. The **Grignard** reagent was added dropwise to a soln. contg. 80g **methyltrichlorosilane** in 150 ml anhydrous diethyl ether at 2-5 deg.C.. The mixt. was stirred overnight at room temp. and 500 ml hexane was added, the reaction mixt. was filtered and the filtrate was fractionally distilled to provide 20.5g of methyl((S)-2-methylbutyl)dichlorosilane. B.pt. was 78-79 deg.C. at 20 mmHg; 26Si-NMR showed at peak at 32.5 ppm.; and 13C NMR showed peaks at 32.3, 30.3, 29.4, 21.7, 11.1 and 6.5 ppm.

Member(0003)
ABEQ JP 07033784 A UPAB 20050509

An organosilicon cpd. possessing a beta-branched alkyl gp. or a beta-branched aralkyl gp. of formula (I) is new. R1 = methyl or ethyl gp.; and R2 = 1-18C alkyl or aryl gp..

USE - The optically active organosilicon cpds. are useful as a new type of enantio-recognitive material and the organosilicons are useful as a high standard material in one-dimensional semiconductor quantum wire structures. - In an example, to a mixt. of 125 ml anhydrous THF, 9.5g Mg and molecular sieves 4A was added a small amt. of iodine. 4.5g (S)-(+)-1-bromo-2-methylbutane was added dropwise followed by 36g (S)-(+)-1-chloro-2-methylbutane and the mixt. was brought to reflux. After the reaction was complete, the obtd. **Grignard** reagent was transferred to a dropping funnel. The **Grignard** reagent was added dropwise to a soln. contg. 80g **methyltrichlorosilane** in 150 ml anhydrous diethyl ether at 2-5 deg.C.. The mixt. was stirred overnight at room temp. and 500 ml hexane was added, the reaction mixt. was filtered and the filtrate was fractionally distilled to provide 20.5g of methyl((S)-2-methylbutyl)dichlorosilane. B.pt. was 78-79 deg.C. at 20 mmHg; 26Si-NMR showed at peak at 32.5 ppm.; and 13C NMR showed peaks at 32.3, 30.3, 29.4, 21.7, 11.1 and 6.5 ppm.

Member(0004)
ABEQ US 5710301 A UPAB 20050509

An organosilicon cpd. possessing a beta-branched alkyl gp. or a beta-branched aralkyl gp. of formula -CH2CHR1R2 (I) is new. R1 = methyl or ethyl gp.; and R2 = 1-18C alkyl or aryl gp..

USE - The optically active organosilicon cpds. are useful as a new type of enantio-recognitive material and the organosilicons are useful as a high standard material in one-dimensional semiconductor quantum wire structures. - In an example, to a mixt. of 125 ml anhydrous THF, 9.5g Mg and molecular sieves 4A was added a small amt. of iodine. 4.5g (S)-(+)-1-bromo-2-methylbutane was added dropwise followed by 36g (S)-(+)-1-chloro-2-methylbutane and the mixt. was brought to reflux. After the reaction was complete, the obtd. **Grignard** reagent was transferred to a dropping funnel. The **Grignard** reagent was added dropwise to a soln. contg. 80g **methyltrichlorosilane** in 150 ml anhydrous diethyl ether at 2-5 deg.C.. The mixt. was stirred overnight at room temp. and 500 ml hexane was added, the reaction mixt. was filtered and the filtrate was fractionally distilled to provide 20.5g of methyl((S)-2-methylbutyl)dichlorosilane. B.pt. was 78-79 deg.C. at 20 mmHg; 26Si-NMR showed at peak at 32.5 ppm.; and 13C NMR showed peaks at 32.3, 30.3, 29.4, 21.7, 11.1 and 6.5 ppm.

Member(0005)
ABEQ EP 612756 B1 UPAB 20050509
An organosilicon cpd. possessing a beta-branched alkyl gp. or a beta-branched aralkyl gp. of formula (I) is new. R1 = methyl or ethyl gp.; and R2 = 1-18C alkyl or aryl gp..

USE - The optically active organosilicon cpds. are useful as a new type of enantio-recognitive material and the organosilicons are useful as a high standard material in one-dimensional semiconductor quantum wire structures. - In an example, to a mixt. of 125 ml anhydrous THF, 9.5g Mg and molecular sieves 4A was added a small amt. of iodine. 4.5g (S)-(+)-1-bromo-2-methylbutane was added dropwise followed by 36g (S)-(+)-1-chloro-2-methylbutane and the mixt. was brought to reflux. After the reaction was complete, the obtd. **Grignard** reagent was transferred to a dropping funnel. The **Grignard** reagent was added dropwise to a soln. contg. 80g **methyltrichlorosilane** in 150 ml anhydrous diethyl ether at 2-5 deg.C.. The mixt. was stirred overnight at room temp. and 500 ml hexane was added, the reaction mixt. was filtered and the filtrate was fractionally distilled to provide 20.5g of methyl((S)-2-methylbutyl)dichlorosilane. B.pt. was 78-79 deg.C. at 20 mmHg; 26Si-NMR showed at peak at 32.5 ppm.; and 13C NMR showed peaks at 32.3, 30.3, 29.4, 21.7, 11.1 and 6.5 ppm.
DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L78 ANSWER 17 OF 39 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1992-045742 [06] WPIX
DOC. NO. CPI: C1992-020311 [21]
TITLE: Polymerisation of ethylene* - by polymerising ethylene* opt. with alpha-olefin*(s), with catalyst from halogenated aluminium, organic silicon cpds. and **grignard** reagent
DERWENT CLASS: A17; A60
INVENTOR: SAKAKIBARA Y; TAKAOKA T; TAMURA M; YANO T
PATENT ASSIGNEE: (UBEI-C) UBE IND LTD
COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
JP 03290409	A	19911220	(199206)*	JA			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 03290409	A	**JP 1990-90139**	**19900406**

PRIORITY APPLN. INFO: **JP 1990-90139 19900406**
INT. PATENT CLASSIF.:
IPC RECLASSIF.: C08F0010-00 [I,A]; C08F0010-00 [I,C]; C08F0004-00 [I,C]; C08F0004-60 [I,A]; C08F0004-658 [I,A]
BASIC ABSTRACT:
JP 03290409 A UPAB: 20050503
The process comprises polymerising (1) ethylene alone or mixed with at least 3 C alpha-olefins in the presence of (2) catalyst system comprising (A) solid catalyst component obtd. by reacting reaction prods. of (a) halogenated Al of formula AlX13 (I) and (b) organic Si cpds. of formula R1nSi(OR2)4-n (II) with (c) **Grignard** cpds. of formula R3MgX2 (III) and standing the solids obtd. in contact with (d) halogenated Ti cpds., (B) organic aluminiums of formula

AlR4mX33-m (IV) and (C) (b) at at least 125 deg.C under at least 200 kg/cm2. (Where X1 = Cl, Br or I; R1, R2 = 1-8C alkyl or phenyl gp.; n = an integer of 0-3; R3 = a 1-8C alkyl gp.; X2, X3 = halogen atoms; R4 = 2-6C alkyl gps.; m = an integer 1-3).

ADVANTAGE - Ethylene polymers having a small melt flow rate are produced. - In an example, preparation of (**A**); **150** moles of tetraethoxysilane were added dropwise to the mixture of 150 moles of anhydrous Al chloride and 400 litres of toluene. The mixture was reacted at 25 deg.C for 5 hrs. and cooled to -10 deg.C. 250 litres of diisoamyl ether containing 300 moles of butylmagnesium chloride were added to the reaction mixture over a period of 5 hrs. at -10 to 0 deg.C. The reaction mixture was reacted at -10 deg.C for 1 hr. The solid deposited was filtered out and washed. The solid was suspended in 250 litres of toluene, mixed with 1500 moles of TiCl4 and held at 90 deg.C with stirring for 3 hrs. The solid was filtered out and washed. The solid catalyst component obtd. contained 4.8 weight% of Ti. @(6pp Dwg.No.0/0 MANUAL CODE: CPI: A02-A06B; A02-A07A; A04-G02A

L78 ANSWER 18 OF 39 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 1990-189727 [25] WPIX
DOC. NO. CPI: C1990-082305 [21]
TITLE: New cpds. for making polyimide for adhering to silicon - is 1,3-bis:(di:carboxy-phenyl):1,1,3,3-tetra:phenyl-di:siloxane di:anhydride
DERWENT CLASS: A26; A41; E11
INVENTOR: KIKUCHI N; KIKUCHI T; SASAKI A
PATENT ASSIGNEE: (HITB-C) HITACHI CHEM CO LTD
COUNTRY COUNT: 2

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC	
JP 02124893	A	19900514	(199025)*	JA			<--
US 5055593	A	19911008	(199143)	EN			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 02124893 A		**JP 1988-276903**	**19881101**
US 5055593 A		**US 1989-429082**	**19891030**

PRIORITY APPLN. INFO: **JP 1988-276903 19881101**
INT. PATENT CLASSIF.:
IPC RECLASSIF.: C07F0007-00 [I,C]; C07F0007-08 [I,A]; C08G0073-00 [I,C]; C08G0073-10 [I,A]

BASIC ABSTRACT:

JP 02124893 A UPAB: 20050503

1,3-Bis(dicarboxyphenyl)-1,1,3,3-tetraphenyldisiloxane dianhydride of formula (I) is new. The two acid anhydride gps. are at 2.3- and/or 3.4-positions independently.

(I) is prepared by dehydration ring closure of the corresp. bis(dicarboxylic acid.

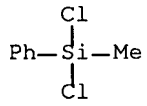
USE/ADVANTAGE - The siloxane derivs. are useful as materials for polyimide resins with excellent adhesion to silicon substrates, heat resistance, mechanical properties and solubility in organic solvents and thus film formability and as curatives for epoxy resins. - In an example, a **Grignard** reagent is prepared from 9.72g Mg and 10.0g bromo-o-xylene (75% 4-bromo- and 25% 3-bromo -o-xylene), the **Grignard** reagent is coupled with 101.28g di- **phenyldichlorosilane**, the resultant diphenyl(dimethylphenyl) chlorosilane is hydrolysed and the obtd. 1,3-

bis(dimethylphenyl) -1,1,3,3,-tetraphenyldisiloxane is oxidised. 14.2g of the resultant tetracarboxylic acid is heated for 3 hrs. at 180 deg.C under 10mmHg to give 13.5g of a mixture consisting mainly of 1-(2,3-dicarboxyphenyl) -3-(3,4-dicarboxyphenyl)-1,1,3,3-tetraphenyldisiloxane dianhydride and 1,3-bis-(3,4-dicarboxylphenyl) -1,1,3,3-tetraphenyldisiloxane dianhydride containing a small amount of 1,3-bis(2,3-dicarboxyphenyl) -1,1,3,3- tetraphenyldisiloxane dianhydride. @(14pp Dwg.No.0/0)@@(14pp Dwg. No 0/0)@
MANUAL CODE: CPI: A01-A03; A01-E11; A08-D02; A08-M01D; E05-E01

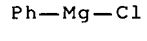
Member(0002)
ABEQ US 5055593 A UPAB 20050503
3-Bis(dicarboxyphenyl)-1, 1,3,3-tetraphenyl dianhydride of formula (I), with two acid anhydride residues independently attached to the adjacent Ph rings at 2,3- or 3,4-positions are new. Pref. cpd. is 1,3-bis(3,4-dicarboxyphenyl)-1,1,3,3-tetraphenyl disiloxane dianhydride. Prepn. is e.g. by coupling a **Grignard** reagent of halo-o-xylene with diphenylhalosilane (IV) where X and X' are each halo, to form (V) where X' is X or X' and hydrolysing to (II), oxidn. to (III) and dehydration ring closure.

USE - (I) can provide polyimides with higher glass transition and thermal decomp-temps. than existing polyimide resins. The polyimide resins have good adhesion to silicon substrates and good heat resistance and mechanical properties. (I) are also used as hardeners for epoxy resins. @(14pp)@

L78 ANSWER 19 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:325882 HCAPLUS Full-text
DOCUMENT NUMBER: 139:133598
TITLE: On the mechanism derived from kinetic solvent effects of Grignard reactions with silanes
AUTHOR(S): Tuulmets, Ants; Panov, Dmitri; Sassian, Meeri
CORPORATE SOURCE: Institute of Organic and Bioorganic Chemistry, University of Tartu, Tartu, 51014, Estonia
SOURCE: Tetrahedron Letters (**2003**), 44(20), 3943-3945
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 29 Apr 2003
AB The kinetic studies of the reaction of RMgX and R2Mg (R = Ph, Bu) with methyltrichlorosilane suggest that the reaction proceeds as SE2 at carbon and SN2 at silicon. Unlike alkoxysilanes, which undergo preliminary coordination of the SiO-moiety on the magnesium center, the chlorosilanes react without pre-coordination step. The rate consts. were measured in tBuOMe, Et2O and THF.
IT **149-74-6P**, Dichloro(methyl)(phenyl)silane
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); **PREP (Preparation)**; PROC (Process)
(arylation product; kinetics and solvent effect on rate of alkylation and arylation of chlorosilanes by Grignard reagents)
RN 149-74-6 HCAPLUS
CN Benzene, (dichloromethylsilyl)- (CA INDEX NAME)



IT **100-59-4**, Phenylmagnesium chloride
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(kinetics and solvent effect on rate of alkylation and arylation of chlorosilanes by Grignard reagents)
RN 100-59-4 HCAPLUS
CN Magnesium, chlorophenyl- (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

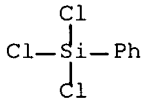
L78 ANSWER 20 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:56917 HCAPLUS Full-text
DOCUMENT NUMBER: 134:101627
TITLE: Preparation of high-purity network polysilanes from trihalosilanes without using alkali metals
INVENTOR(S): Murase, Hiroaki; Fujiki, Takeshi
PATENT ASSIGNEE(S): Osaka Gas Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: **Patent**
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001019769	A	20010123	JP 1999-196485	19990709 <--
PRIORITY APPLN. INFO.:			JP 1999-196485	19990709 <--

ED Entered STN: 24 Jan 2001
AB Network polysilanes with d.p. 2-1000 are prepared by reaction of RSiX3 (R = H, alkyl, aryl, silyl; X = halo; the 3 X may be different from one another) with Mg (alloys) in aprotic solvents. PhSiCl3 was reacted with Mg in THF at room temperature for 15-20 h to give 100% network polysilane with d.p. 12.
IT **25948-40-7P 41087-22-3P**, Phenyltrichlorosilane homopolymer
RL: IMF (Industrial manufacture); **PREP (Preparation)**
(preparation of high-purity network polysilanes from trihalosilanes without using alkali metals)
RN 25948-40-7 HCAPLUS
CN Benzene, (trichlorosilyl)-, polymer with trichloromethylsilane (CA INDEX NAME)

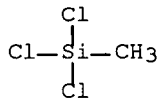
CM 1

CRN 98-13-5
CMF C6 H5 Cl3 Si



CM 2

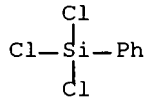
CRN 75-79-6
CMF C H3 Cl3 Si



RN 41087-22-3 HCAPLUS
CN Silane, trichlorophenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 98-13-5
CMF C6 H5 Cl3 Si



L78 ANSWER 21 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:802154 HCAPLUS Full-text
DOCUMENT NUMBER: 128:89278
TITLE: Preparation of polysilanes having desired substituents in side chains
INVENTOR(S): Shono, Tatsuya; Kashimura, Shigefumi; Nishida, Ryoichi; Murase, Hiroaki
PATENT ASSIGNEE(S): Osaka Gas Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: **Patent**
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09324053	A	19971216	JP 1996-145953	19960607 <--
JP 3622038	B2	20050223		

PRIORITY APPLN. INFO.: JP 1996-145953 19960607 <--

ED Entered STN: 24 Dec 1997

AB Polysilanes (SiR1R2)m (R1 = aryl; R2 = H, alkyl; n = 10-20,000) are chlorinated with acyl chlorides using Lewis acid catalysts in aprotic solvents to give polysilanes (SiClR2)l(SiR1R2)m (R1, R2 = same as above; l >0; m ≥0; l + m = 10-20,000), which are reacted with Grignard reagents R3MgX [R3 = (un)substituted alkyl, (un)substituted aryl; X = halo] to give polysilanes (SiR2R3)l(SiR1R2)m (R1-R3, l, m = same as above). Thus, methylphenylpolysilane (Mn = 10,900) was chlorinated with AcCl in the presence of AlCl3 and then stirred with p-ethylphenylmagnesium bromide to give a substituted polysilane.

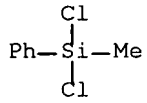
IT **31324-77-3DP**, Dichloromethylphenylsilane homopolymer, reaction products with acyl chlorides and Grignard reagents
RL: IMF (Industrial manufacture); **PREP (Preparation)**
(manufacture of side chain-substituted polysilanes by Friedel-Crafts chlorination and Grignard reaction)

RN 31324-77-3 HCAPLUS

CN Benzene, (dichloromethylsilyl)-, homopolymer (CA INDEX NAME)

CM 1

CRN 149-74-6
CMF C7 H8 Cl2 Si



L78 ANSWER 22 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1989:553903 HCAPLUS Full-text
DOCUMENT NUMBER: 111:153903
TITLE: Continuous organomagnesium synthesis of organosilanes and organochlorosilanes
AUTHOR(S): Zhun, V. I.; Ten, M. K.; Sheludyakov
CORPORATE SOURCE: USSR
SOURCE: Khimicheskaya Promyshlennost (Moscow, Russian Federation) (**1989**), (1), 15-18
CODEN: KPRMAW; ISSN: 0023-110X
DOCUMENT TYPE: Journal
LANGUAGE: Russian

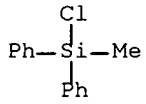
ED Entered STN: 28 Oct 1989

AB Continuous reaction of RCl (R = Et, hexyl, Ph, allyl, vinyl) or PrBr with various chlorosilanes, e.g., MeSiCl3, Me2SiClH, PhSiCl3, CH2:CHSiCl3, Ph2SiCl2, or Si(OEt)4 in a pilot-plant reactor containing Mg and solvent (PhMe, THF, EtOH-PhMe) gave mixts. of organosilanes and organochlorosilanes. E.g., reaction of MeSiCl3 with EtCl gave 59% MeSiEt3, 25% MeSiEt2Cl, and 7% MeSiEtCl2. The production of MeSiPh2H from PhCl and MeSiCl2H is examined in

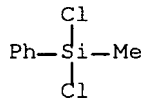
detail; yields up to 87.3% were obtained in THF and PhMe solvents in different zones of the reactor.

IT **144-79-6P 149-74-6P**
RL: **PREP (Preparation)**
(continuous production of, by Grignard coupling reaction)

RN 144-79-6 HCAPLUS
CN Benzene, 1,1'-(chloromethylsilylene)bis- (CA INDEX NAME)



RN 149-74-6 HCAPLUS
CN Benzene, (dichloromethylsilyl)- (CA INDEX NAME)

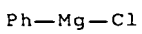


L78 ANSWER 23 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1988:631282 HCAPLUS Full-text
DOCUMENT NUMBER: 109:231282
TITLE: process for the purification of organic silicon compounds with organic magnesium compounds
INVENTOR(S): Ueno, Susumu; Shinohara, Norio; Inoue, Yoshibumi
PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: **Patent**
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

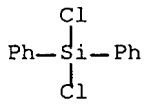
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63077887	A	19880408	JP 1986-221568	19860919 <--
JP 03044079	B	19910704		

PRIORITY APPLN. INFO.: JP 1986-221568 19860919 <--
ED Entered STN: 24 Dec 1988
AB Organic Si compds. containing impurities are purified by treatment with organic Mg compds. followed by separation to remove organic halo compds. (Me3SiO)2SiMe2 (I) (5000 g) containing 0.005 mol PhBr was treated with MeMgCl in THF at 60° for 6 h, filtered, and then distilled to give 4500 g I containing ≤0.01 ppm PhBr. A Si substrate was coated with the above purified I and washed with aqueous HF to be free of C on the surface while a control treated with unpurified or distilled I showed residual C.
IT **100-59-4**, Phenylmagnesium chloride
RL: RCT (Reactant); RACT (Reactant or reagent)

(purification by, of silanes and siloxanes)
RN 100-59-4 HCAPLUS
CN Magnesium, chlorophenyl- (CA INDEX NAME)



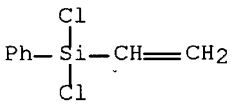
IT **80-10-4P**, Diphenyldichlorosilane
RL: PUR (Purification or recovery); **PREP (Preparation)**
(purification of, by treatment with organic magnesium compds.)
RN 80-10-4 HCAPLUS
CN Benzene, 1,1'-(dichlorosilylene)bis- (CA INDEX NAME)



L78 ANSWER 24 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1978:137320 HCAPLUS Full-text
DOCUMENT NUMBER: 88:137320
TITLE: Synthesis and copolymerization of reactive polycarbosilanes
AUTHOR(S): Podol'skii, A. V.; Bulatov, M. A.; Ezhova, N. Yu.
CORPORATE SOURCE: Inst. Khim., Sverdlovsk, USSR
SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A (**1978**), 20(1), 119-24
CODEN: VYSAAF; ISSN: 0507-5475
DOCUMENT TYPE: Journal
LANGUAGE: Russian
ED Entered STN: 12 May 1984
AB Oligomers of structure HZ(SiHRZ)nR1 [I, Z = p-C6H4C6H4-p, (p-C6H4)2O, p-(p-C6H4O)2C6H4, (p-CH2C6H4)2O, p-(CH2)2C6H4, p-C6H4, (CH2)5; R = Me, Et, Ph; R1 = H, Br; n = 3-9] were prepared by Grignard reaction of BrZBr with Cl2SiHR. Similar reaction of BrZBr with Cl2Si(CH:CH2)R gave oligomers HZ[Si(CH:CH2)RZ]nR1 (II), n = 3-12). Hydrosilylation of II with I in the presence of H2PtCl6 gave the corresponding crosslinked polymers. Thermal degradation of the latter commenced at 240-350°.
IT **66062-47-3P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(oligomeric, preparation and polymerization of, with hydrosilanes)
RN 66062-47-3 HCAPLUS
CN Silane, dichloroethenylphenyl-, polymer with 4,4'-dibromo-1,1'-biphenyl (9CI) (CA INDEX NAME)

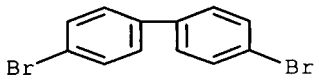
CM 1

CRN 7719-02-0
CMF C8 H8 Cl2 Si



CM 2

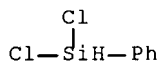
CRN 92-86-4
CMF C12 H8 Br2



IT **66062-65-5P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(oligomeric, preparation and polymerization of, with vinylsilanes)
RN 66062-65-5 HCAPLUS
CN Silane, dichlorophenyl-, polymer with 4,4'-dibromo-1,1'-biphenyl (9CI) (CA INDEX NAME)

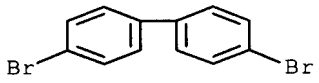
CM 1

CRN 1631-84-1
CMF C6 H6 Cl2 Si



CM 2

CRN 92-86-4
CMF C12 H8 Br2

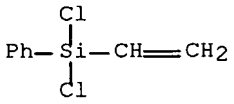


IT **66062-53-1P**
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); **PREP (Preparation)**; PROC (Process)
(preparation and thermal stability of)

RN 66062-53-1 HCAPLUS
CN Silane, dichloroethenylphenyl-, polymer with 4,4'-dibromo-1,1'-biphenyl and dichlorophenylsilane (9CI) (CA INDEX NAME)

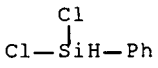
CM 1

CRN 7719-02-0
CMF C8 H8 Cl2 Si



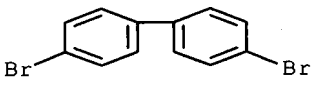
CM 2

CRN 1631-84-1
CMF C6 H6 Cl2 Si



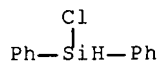
CM 3

CRN 92-86-4
CMF C12 H8 Br2



L78 ANSWER 25 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1976:150030 HCAPLUS Full-text
DOCUMENT NUMBER: 84:150030
TITLE: Studies of the kinetics and mechanism of oxidative cleavage of the silicon-hydrogen bond in triorganosilanes in the presence of copper(II) salts
AUTHOR(S): Marciniec, Bogdan
CORPORATE SOURCE: Wydz. Mat. Fiz. Chem., Uniw. Adama Mickiewicza, Poznan, Pol.
SOURCE: Prace Wydzialu Matematyki, Fizyki i Chemii, Uniwersytet im. Adama Mickiewicza w Poznaniu, Seria: Chemia (**1975**), 16, 108 pp.
CODEN: UAMPAL; ISSN: 0554-8241

DOCUMENT TYPE: Journal
LANGUAGE: Polish
ED Entered STN: 12 May 1984
AB The title process in (RO)3SiH (I; R = Me, Et, Pr, Me2CH) and R2SiR1H (II; R = R1 = Et, Pr, Me2CH, Ph, PhCH2; R = Et, Ph, R1 = Me; R = Me, R1 = Ph) at 20-35° was 1st order in I and II and 1st order in Cu(II) for II, and proceeded via electrophilic attack of Cu(II) on the Si-H bond; autocatalytic heterolytic oxidation of the Si-H bond was also observed in the presence of O. The reaction rate was also affected by H2O, Cu(I), and peroxide concns. and O partial pressure; complexes of I with Cu(I) and Cu(II), Cu hydride, peroxy compds., and superoxide radicals were among the intermediates identified. I were prepared from HSiCl3 and the corresponding ROH, and II were prepared from HSiR2Cl and R1MgX (X = halo).
IT **1631-83-0**
RL: PRP (Properties)
(Grignard reaction with methyl iodide)
RN 1631-83-0 HCAPLUS
CN Benzene, 1,1'-(chlorosilylene)bis- (CA INDEX NAME)

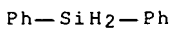


L78 ANSWER 26 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1960:34029 HCAPLUS Full-text
DOCUMENT NUMBER: 54:34029
ORIGINAL REFERENCE NO.: 54:6603f-i,6604a-i
TITLE: Selective reactions of the silicon-hydrogen group with Grignard reagents. The preparation of some unsymmetrical silane derivatives
AUTHOR(S): Gilman, Henry; Zuech, Ernest A.
CORPORATE SOURCE: Iowa State Univ., Ames
SOURCE: Journal of the American Chemical Society (**1959**), 81, 5925-8
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
ED Entered STN: 22 Apr 2001
AB While PhSiH3 (I) and Ph2SiH2 (II) in tetrahydrofuran reacted readily with Grignard reagents to yield the corresponding di- and tri-substituted silanes, Ph3SiH (III) reacted only after extended refluxing with some Grignard reagents. All reactions were carried out under dry O-free N. CH2:CHCH2Cl (6.12 g.) in 60 cc. tetrahydrofuran added to 9.72 g. Mg in 20 cc. tetrahydrofuran at such a rate as to maintain moderate reflux, the mixture filtered, the filtrate (containing 0.0635 mole Grignard reagent) added to 18.2 g. III in 50 cc. tetrahydrofuran, refluxed 4 days, hydrolyzed with 100 cc. saturated aqueous NH4Cl, and worked up in the usual manner gave 12.1 g. Ph3SiCH2CH:CH2 (IV), m. 88.5-90° (absolute EtOH). A similar run with 0.07 mole each CH2:CHCH2MgCl and III during 1 day gave 53% IV. PhMgBr (0.063 mole) refluxed 20 hrs. with 0.07 mole III yielded 14.7% Ph4Si, m. 236-8°. A similar run during 11 days gave 25.6% Ph4Si, m. 235-7°, and 57% unchanged III. PhMgBr (0.064 mole) and 0.07 mole III in tetrahydrofuran stirred 2 days at room temperature did not give any Ph4Si, but only 96.4% unchanged III. PhCH2MgCl (0.061 mole) and 0.07 mole III in tetrahydrofuran refluxed 4 days yielded 53% Ph3SiCH2Ph, m. 97-9°. BuMgBr and Ph(CH2)2MgBr gave similarly with III only 91 and 92% unchanged III, resp. PhMgBr (0.089 mole) in 100 cc. Et2O added to 9.2

g. II in 50 cc. Et2O, refluxed 3 days, hydrolyzed, and worked up in the usual manner gave 4.3 g. unchanged II, b1 76-81°, n20D 1.5782, and 3.95 g. III, m. 44-5.5° (MeOH). PhMgBr (0.095 mole) in 100 cc. tetrahydrofuran added to 9.2 g. II in 50 cc. tetrahydrofuran, refluxed 2 days, hydrolyzed, and the organic layer worked up gave 10.4 g. III, m. 43-5°. PhMgBr (0.097 mole) and 0.05 mole II refluxed 2 hrs. in tetrahydrofuran gave similarly 68% III. CH2:CHCH2MgCl (0.10 mole) and 0.05 mole II in tetrahydrofuran refluxed 48 hrs. gave 77% Ph2SiHCH2CH:CH2, b1.5 112-16°, n20D 1.5743, d2020 0.9940. CH2:CHCH2MgCl (0.217 mole) and 0.05 mole II refluxed 120 hrs. yielded 77% Ph2Si(CH2CH:CH2)2, b0.1 117-20°, n20D 1.5745. BuMgBr (0.09 mole) and 0.05 mole II gave similarly during 48 hrs. 72% Ph2SiHBu, b1.0 110-12°, n20D 1.5541, d2020 0.9604. C10H21MgBr (0.072 mole) and 0.05 mole II gave during 24 hrs. 70% Ph2SiHC10H21, b1.5 164-8°, n25D 1.5253, d2020 1.9262. PhCH2MgCl and II (0.05 mole each) gave during 24 hrs. 70% Ph2SiHCH2Ph, b0.1 140-3°, n20D 1.6063, d2020 1.0494. BrMg(CH2)5MgBr (0.038 mole) and 0.077 mole II in tetrahydrofuran refluxed 14 hrs. gave 43% [Ph2SiHCH2CH2]2CH2, b0.008 217-20°, n20D 1.5946, d2020 1.0390. C12H25MgBr (0.1 mole) in 130 cc. tetrahydrofuran added to 10.8 g. I in 35 cc. tetrahydrofuran, stirred 18 hrs., refluxed 1 hr., hydrolyzed with 100 cc. 5% HCl, the aqueous phase extracted with Et2O, and the combined organic layer and Et2O extract worked up yielded 21.75 g. C12H25SiPhH2 (IVa), b0.6 130-1°, n20D 1.4880, d2020 0.8629, MRD 92.41. I (16.2 g.) in 25 cc. tetrahydrofuran treated with 0.16 mole o-MeC6H4MgBr in 180 cc. tetrahydrofuran, stirred 24 hrs. at room temperature, hydrolyzed with 150 cc. 5% HCl, the aqueous layer extracted with Et2O, and the combined organic layer and Et2O extract worked up gave 25.8 g. o-MeC6H4SiH2Ph (V), b0.1 85-9°, n20D 1.5808, d2020 1.0015. PhMgBr (0.049 mole) and 0.05 mole I in tetrahydrofuran stirred 6.5 hrs. gave 66% Ph2SiH2, b0.5 71-3°, n20D 1.5795. PhMgBr (0.18 mole) and 0.05 mole I gave during 48 hrs. 67% III, m. 44-5.5°. PhMgBr and I (0.05 mole each) in Et2O stirred 24 hrs. gave 52% Ph2SiH2, b0.5 69-71°, n20D 1.5792. C10H21MgBr (0.06 mole) and 0.06 mole I gave during 18 hrs. 62% C10H21SiH2Ph, b0.6 108-11°, n20D 1.4906, d2020 0.8648. PhCH2MgCl and I (0.07 mole each) in tetrahydrofuran stirred 20 hrs. at room temperature gave 67% PhCH2SiH2Ph, b0.9 97-8°, n20D 1.5738. p-MeOC6H4MgBr (0.19 mole) and 0.20 mole I stirred 17 hrs. in tetrahydrofuran gave 75% p-MeOC6H4SiH2Ph (VI), b0.15 118-21°, m. 45-7°. p-PhOC6H4MgBr (0.10 mole) and 0.11 mole I stirred 17 hrs. gave 74% p-PhOC6H4SiH2Ph (VII), b0.02 145-7°, n20D 1.6093. m-MeC6H4MgBr [0.051 mole) in 70 cc. tetrahydrofuran added to 10.1 g. V in 25 cc. tetrahydrofuran, refluxed 24 hrs., hydrolyzed with 100 cc. 5% HCl, and worked up in the usual manner yielded 10.72 g. o-MeC6H4PhSiC6H4Me-p (VIII), b0.006 145-8°. In the same manner were prepared the following compds. (b.p./mm. n20D, d2020, % yield, reaction time in hrs., starting silane, and Grignard reagent given): C12H25SiPhHCH2Ph, 176-86°/0.3, 1.5233, 0.9209, 63, 18, IVa, PhCH2MgCl; o-MeC6H4SiPhHC6H4OMe-p (IX), 171-3°/0.02, 1.6115, 1.0854, 32, 20, VI, o-MeC6H4MgBr; o-MeC6H4PhSiHC6H4OPh-p (X), 205-7°/0.004, -, -, 55.5, 18, V, p-PhOC6H4MgBr; p-MeOC6H4PhSiHC6H4OPh-p (XI), 227-30°/0.005, -, -, 60, 18, VI, p-PhOC6H4MgBr; p-PhOC6H4PhSiHC6H4OPh-o (XII), 234-6°/0.003, -, -, 43, 30, VII, o-PhOC6H4MgBr. p-MeC6H4Li (0.029 mole) in 40 cc. Et2O added to 4.45 g. VIII in 25 cc. Et2O, refluxed 18 hrs., hydrolyzed with 100 cc. 5% HCl, and worked up in the usual manner gave 4.85 g. o-MeC6H4(m-MeC6H4)(p-MeC6H4)SiPh, glass, b0.003 196-200°. Similarly were prepared the following compds. (b.p./mm., % yield, starting silane, and organo-Li reagent given): p-MeC6H4(o-MeC6H4)(p-MeOC6H4)SiPh, 204-12°/0.008, 72, IX, p-MeC6H4Li; Me(p-MeOC6H4)(p-PhOC6H4)SiPh, 225-8°/0.003, 79, XI, MeLi; Me(o-MeC6H4)(p-PhOC6H4)SiPh, 210-13°/0.004, 69, X, MeLi; p-MeC6H4(p-MeOC6H4)(p-PhOC6H4)SiPh, 260-4°/0.003, 60, XI, p-MeC6H4Li; o-MeC6H4(p-MeC6H4)(p- PhOC6H4)SiPh, 249-51°/0.004, 68, X, p-MeC6H4Li; Me(o-MeC6H4)(p-MeC6H4)SiPh, 143-4°/0.005, 63, VIII, MeLi; Me(o-PhOC6H4)(p-PhOC6H4)SiPh, 225-7°/0.004, 52, XII, MeLi. All silicon hydrides showed in CCl4 or as liquids a characteristic absorption band between 2155 and 2125 cm.-1 with the trisubstituted derivs. absorbing at longer wave lengths.

IT **775-12-2**, Silane, diphenyl-

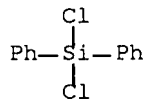
(reaction with Grignard reagents)
RN 775-12-2 HCAPLUS
CN Benzene, 1,1'-silylenebis- (CA INDEX NAME)



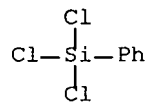
L78 ANSWER 27 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1958:35455 HCAPLUS
DOCUMENT NUMBER: 52:35455
ORIGINAL REFERENCE NO.: 52:6403c-d
TITLE: Arylhalosilanes
INVENTOR(S): Ramsden, Hugh E.
PATENT ASSIGNEE(S): Metal & Thermit Corp.
DOCUMENT TYPE: **Patent**
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2813887		19571119	US 1953-393514	19531120 <--

ED Entered STN: 22 Apr 2001
AB Incorporation of 1-2% CoCl2 as catalyst in the Grignard synthesis also improves the yield of arylhalosilanes.
IT **80-10-4P**, Silane, dichlorodiphenyl- **98-13-5P**, Silane, trichlorophenyl-
RL: **PREP (Preparation)**
(preparation of)
RN 80-10-4 HCAPLUS
CN Benzene, 1,1'-(dichlorosilylene)bis- (CA INDEX NAME)



RN 98-13-5 HCAPLUS
CN Benzene, (trichlorosilyl)- (CA INDEX NAME)

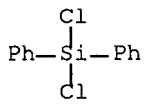


L78 ANSWER 28 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN

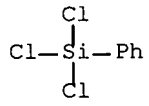
ACCESSION NUMBER: 1958:35454 HCAPLUS
DOCUMENT NUMBER: 52:35454
ORIGINAL REFERENCE NO.: 52:6403b-d
TITLE: Arylhalosilanes
INVENTOR(S): Ramsden, Hugh E.
PATENT ASSIGNEE(S): Metal & Thermit Corp.
DOCUMENT TYPE: **Patent**
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2813886		19571119	US 1953-393512	19531120 <--

ED Entered STN: 22 Apr 2001
AB Improved yields of arylhalosilanes are achieved through the Grignard synthesis using 1-2% HgCl2, ZnCl2, or CdCl2 as catalyst. Thus, 1 mole PhMgCl is added dropwise to a stirred mixture of 0.5 mole SiCl4, 1-2% (based on SiCl4) HgCl2, and a small quantity (not further defined) of PhCl. The resultant mixture is refluxed till the green-yellow color changes to gray, the mixture filtered, and distilled to give 73% (base on Si) arylhalosilanes compared to 40% without HgCl2.
IT **80-10-4P**, Silane, dichlorodiphenyl- **98-13-5P**, Silane, trichlorophenyl-
RL: **PREP (Preparation)**
(preparation of)
RN 80-10-4 HCAPLUS
CN Benzene, 1,1'-(dichlorosilylene)bis- (CA INDEX NAME)

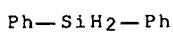


RN 98-13-5 HCAPLUS
CN Benzene, (trichlorosilyl)- (CA INDEX NAME)



L78 ANSWER 29 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1958:1713 HCAPLUS Full-text
DOCUMENT NUMBER: 52:1713
ORIGINAL REFERENCE NO.: 52:288h-i,289a-b
TITLE: Some selective reactions of the silicon-hydrogen group with organometallic compounds
AUTHOR(S): Gilman, Henry; Zuech, Ernest A.
CORPORATE SOURCE: Iowa State Coll., Ames

SOURCE: Journal of the American Chemical Society (**1957**), 79, 4560-1
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
ED Entered STN: 22 Apr 2001
AB cf. C.A. 44, 10655a. A series of reactions is reported which readily permits the synthesis of a wide variety of organosilicon compds., particularly unsym. ones. The introduction of the various R groups can be effected stepwise by the proper choice of solvent and organometallic compound The synthesis is particularly appropriate for the preparation of low-melting compds. of the type R4Si where all the R groups can be different. Ph3SiH treated 24 hrs. in refluxing tetrahydrofuran (THF) with PhMgBr yielded 14% Ph4Si. Ph3SiH treated 24 hrs. in refluxing THF with CH2:CHCH2MgBr yielded 53% Ph3SiCH2CH:CH2. Ph2SiH2 refluxed 2 days with excess PhMgBr in THF yielded 79% Ph3SiH; similarly, Ph2SiH2 with BuMgBr yielded 72% BuPh2SiH, b1, 110-12°, n20D 1.5541, d20 0.9604. Ph2SiH2 with excess PhMgBr in Et2O yielded 31% Ph3SiH. PhSiH3 with 1 equivalent PhMgBr in THF 6.5 hrs. at room temperature yielded 66% Ph2SiH2; the same reaction 24 hrs. in Et2O yielded 52% Ph2SiH2. PhSiH3 with 1 equivalent C12H25MgBr in THF yielded 78% dodecylphenylsilane (I), b0.6 130-1°, n20D 1.4480, d20 0.8629. I with 1 equivalent PhCH2MgCl refluxed 18 hrs. in THF yielded 63% benzyldodecylphenylsilane, b0.12 180-3°, n20D 1.5233, d20 0.9209.
IT **775-12-2P**, Silane, diphenyl-
RL: **PREP (Preparation)**
(preparation of)
RN 775-12-2 HCAPLUS
CN Benzene, 1,1'-silylenebis- (CA INDEX NAME)

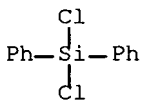


L78 ANSWER 30 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1958:40365 HCAPLUS Full-text
DOCUMENT NUMBER: 52:40365
ORIGINAL REFERENCE NO.: 52:7191d-h
TITLE: Preparation of some arylchlorosilanes with arylmagnesium chlorides
AUTHOR(S): Rosenberg, Sanders D.; Walburn, John J.; Ramsden, Hugh E.
CORPORATE SOURCE: Metal and Thermit Corp., Rahway, NJ
SOURCE: Journal of Organic Chemistry (**1957**), 22, 1606-7
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
ED Entered STN: 22 Apr 2001
AB Ph2SiCl2 (I), PhMeSiCl2 (II), Ph(CH2:CH)SiCl2 (III), PhSiCl3 (IV), (p-ClC6H4)SiCl3 (V), (p-ClC6H4)2SiCl2 (VI), (p-MeOC6H4)2SiCl2 (VII), and (p-EtC6H4)2SiCl2 (VIII) were prepared by the reaction of arylmagnesium chlorides with appropriate silicon chlorides. SiCl4 (IX) (374 g.) in 2 l. heptane (X) treated at 0.5 l./hr. and 40-50° with PhMgCl (from a 2.0-mole run) in tetrahydrofuran, the mixture refluxed 2 hrs., cooled to room temperature, the solution filtered to remove the salt through a dispersion tube, the salt cake washed with more X, the unreacted IX, tetrahydrofuran, and X removed, and the residue fractionated gave 198.5 g. IV, b0.4 54-7°, 10.0 g. Ph2, b1.0 95-105°,

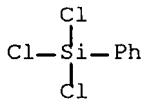
and 42.4 g. I, b2 123-6°. CH2:CHSiCl3 (324 g.) in 2 l. X treated at 0.25 l./hr. with 2 moles PhMgCl in tetrahydrofuran, the mixture refluxed 1 hr., the solution filtered from the salt, and the residue distilled gave 228.2 g. III, b1.5 84-7°, and 35.9 g. Ph2(CH2:CH)SiCl, b1.5 133-6°. MeSiCl3 (598 g.) in 2 l. PhMe was treated at 40° with 0.75 l./hr. PhMgCl in PhMe, the mixture stirred a further 2 hrs., the solution filtered, and the unreacted materials distilled at 1.0 atmospheric Distillation of the residue gave 277 g. II, b1 55-8°, and 12 g. Ph2MeSiCl, b1 112-15°. The MeSiCl3 in PhMe carefully fractionated gave 305 g. MeSiCl3, b. 63-70°. Hexachlorobenzene (XI) (142.4 g.), 48.7 g. Mg, 500 ml. tetrahydrofuran, and one crystal of iodine warmed gently and treated with 2 ml. EtBr, then the solution cooled, and after the initial phase was completed, 427.2 g. XI added as fast as the reflux rate would permit, and the solution stirred 1 hr. gave 60.0% perchlorophenylmagnesium chloride. The yield was ascertained by hydrolysis to pentachlorobenzene. PhMgBr (2.0 equivs.) added to 0.9 equivalent IX gave 77% I and 8% IV. Using virtually identical conditions the following results were obtained: p-ClC6H4MgCl (XII) and IX gave 32% V, b1.5 88-91°, and 21% VI, b1.5 178-81°; XII and IX also gave 39% VI and 18% V; p-MeOC6H4MgCl and IX gave 44% VII, b1.5 194-7°, and 24% p-MeOC6H4SiCl3, b1.0 94-7°; p-EtC6H4MgCl and IX gave 62% VIII, b1.8 163-6°, and 13% p-EtC6H4SiCl3, b1.0 94-7°. A hydrocarbon solvent was used in all the reactions to limit solubility of the MgCl2 and to yield a salt from which the solution could be filtered easily. No differences were noted in the behavior of the reactions in comparative duplicate runs provided the solvents were kept anhydrous

IT **80-10-4P**, Silane, dichlorodiphenyl- **98-13-5P**, Silane, trichlorophenyl- **144-79-6P**, Silane, chloromethyldiphenyl- **149-74-6P**, Silane, dichloromethylphenyl- **7719-02-0P**, Silane, dichlorophenylvinyl-
RL: **PREP (Preparation)**
(preparation of)

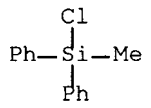
RN 80-10-4 HCAPLUS
CN Benzene, 1,1'-(dichlorosilylene)bis- (CA INDEX NAME)



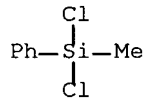
RN 98-13-5 HCAPLUS
CN Benzene, (trichlorosilyl)- (CA INDEX NAME)



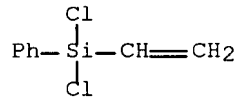
RN 144-79-6 HCAPLUS
CN Benzene, 1,1'-(chloromethylsilylene)bis- (CA INDEX NAME)



RN 149-74-6 HCAPLUS
CN Benzene, (dichloromethylsilyl)- (CA INDEX NAME)



RN 7719-02-0 HCAPLUS
CN Benzene, (dichloroethenylsilyl)- (CA INDEX NAME)



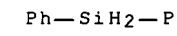
L78 ANSWER 31 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1957:56563 HCAPLUS Full-text
DOCUMENT NUMBER: 51:56563
ORIGINAL REFERENCE NO.: 51:10408b-i
TITLE: The cleavage of sym-diphenyldisiloxane by organometallic compounds
AUTHOR(S): Harvey, Mack C.; Nebergall, William H.; Peake, John S.
CORPORATE SOURCE: Indiana Univ., Bloomington
SOURCE: Journal of the American Chemical Society (**1957**), 79, 1437-9
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
ED Entered STN: 22 Apr 2001
AB PhSiCl3 (1692 g.) in 1 l. Et2O added dropwise to 300 g. LiAlH4 in 6 l. Et2O, allowed to stand overnight, hydrolyzed, and worked up gave 573 g. PhSiH3 (I), b750 120°. Dry HBr passed through 108 g. I in 50 cc. Et2O for 13.5 hrs. and distilled gave 187 g. PhSiH2Br (II), b17 70°. II (187 g.) in 300 cc. Et2O poured onto crushed ice and the organic layer worked up gave 73 g. (PhSiH2)2O (III), b0.15 86-90°, nD25 1.541, and 9.6 g. (PhSiHO)3, 2,4,6-triphenylcyclotrisiloxane (IIIa), b0.07 140-50°, nD26 1.566. III (10.0 g.) in 50 cc. Et2O added dropwise to 400 cc. MeLi-Et2O (from 44 g. MeI and excess Li) (all reactions with Li-organic compds. were carried out under N), stirred 3 hrs., poured onto ice, and worked up gave 2.8 g. PhSiMe3, b1.5 30°, b749 166-7°, and 2.5 g. (PhSiMe2)2O, b2 110°. III (1.5 g.) in 10 cc. Et2O added dropwise to 150 cc. PhLi (from 15.7 g. PhBr and excess Li), refluxed 1 hr.,

poured onto crushed ice and HCl, and worked up yielded 1.9 g. Ph4Si, m. 234°, and 1.2 g. Ph3SiOH, m. 150°. III (46 g.) in 50 cc. Et2O added dropwise to MeMgI (from 71 g. MeI and 12 g. Mg) in 200 cc. Et2O, refluxed 1 hr., allowed to stand overnight, and heated in vacuo to remove volatile material, the residual reaction mixture poured onto crushed ice and dilute H2SO4, and the organic layer worked up gave 14 g. mixture of PhSiH3 and MePhSiH2, and 15.5 g. (PhSiHMe)2O, b0.25 96-100°, b0.12 80°, nD25 1.519; the PhSiH3 MePhSiH2 mixture added dropwise to PhLi (from 110 g. PhBr and excess Li) in 300 cc. Et2O, refluxed 1 hr., poured onto crushed ice and dilute H2SO4, the Et2O layer evaporated, and the white solid residue extracted in a Soxhlet extractor 1 hr. with petr. ether (b. 20-40°) gave from the extract 7.9 g. Ph3SiMe, m. 65-6°; the remaining residue extracted 12 hrs. with PhMe gave 33.0 g. Ph4Si, m. 232-3°. III (46 g.) in 50 cc. Et2O added dropwise to EtMgBr (from 70 g. EtBr and 12 g. Mg) in 200 cc. Et2O, refluxed 1 hr., hydrolyzed, and worked up gave 24.6 g. Ph4Si, m. 232-3°, and a mixture of PhSiH3 and EtPhSiH2; the liquid residue distilled in vacuo yielded 12.0 g. (PhSiHEt)2O, b0.05 140-200°, b0.03 107°, nD25 1.523. III (23 g.) in 20 cc. Et2O added dropwise to PhMgBr (from 63 g. PhBr and 4.8 g. Mg) in 200 cc. Et2O, refluxed 1 hr., hydrolyzed, and worked up gave 11.7 g. Ph2SiH2, b0.6 60°, and 5.0 g. IIIa, b0.02 168°, nD25 1.566. III (23 g.) in 25 cc. Et2O added dropwise to PhCH2MgCl (from 63 g. PhCH2Cl and 12 g. Mg) in 200 cc. Et2O, refluxed 1 hr., hydrolyzed, and worked up gave 19 g. mixture of PhSiH3 and PhMe, b. 120°, and left a liquid residue. The PhSiH3-PhMe mixture treated with PhLi (from 94 g. PhBr and excess Li) yielded 7.0 g. Ph4Si, m. 232-3°. The original liquid residue distilled in vacuo gave 24 g. mixture of (PhCH2)2 and PhCH2SiH2Ph, b0.43 100-60°; this mixture treated with PhLi (from 63 g. PhBr and excess Li) in Et2O, hydrolyzed, and worked up in the usual manner yielded a liquid residue which, after removal of the (PhCH2)2 in vacuo, treated with petr. ether (b. 20-40°) yielded 15 g. Ph3SiCH2Ph, m. 96-7° (from 95% EtOH). III (4.0 g.) added dropwise to 2.0 g. LiAlH4 in 250 cc. Et2O, allowed to stand 2 hrs., and poured onto crushed ice and dilute HCl, and the Et2O layer washed with dilute HCl and H2O, dried, and distilled yielded 2.1 g. PhSiH3, b740.3 119°.

IT **775-12-2P**, Silane, diphenyl-
RL: **PREP (Preparation)**
(formation from 1,3-diphenyldisiloxane)

RN 775-12-2 HCAPLUS

CN Benzene, 1,1'-silylenebis- (CA INDEX NAME)



L78 ANSWER 32 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1960:62255 HCAPLUS Full-text

DOCUMENT NUMBER: 54:62255

ORIGINAL REFERENCE NO.: 54:11975h-i,11976a-b

TITLE: Organosilicon polymers. IV. Polysubstitution in ethyl orthosilicate

AUTHOR(S): Guzman, G. Martin; Orbiso, J. L.

SOURCE: Anales real soc. espan. fis. y quim. (Madrid) (**1956**), 52B, 739-44

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

ED Entered STN: 22 Apr 2001

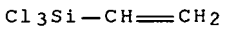
AB cf. C.A. 54, 4360e. Studies on the competitive reactions between Si(OEt)4 (I) and MeMgI (II) to produce MeSi(OEt)3 (III), Me2Si(OEt)2 (IV), and Me3SiOEt (V) by either a 1- or 2-step process are described. The data for the 2-step

process are (ester g./100 ml., Mg g./100 ml., mole ratio Me/Si, temperature, hrs., method of isolation, composition % III, IV, V in product, % yield given): 93.6, 14.4, 1.40, 33, 2.5, hydrolysis and extraction, 90, -, -, 14; 93.6, 18.9, 1.95, 33, 22, hydrolysis and extraction, -, 40, 26, 37.6; 93.6, 15.7, 2.02, -, -, distillation without hydrolysis, 6, 25, 37, 32; 93.6, 18.3, 2.29, -, -, hydrolysis and extraction, 20, 20, 29, 10.5; 30, 21.5, 1.45, 34, 3, distillation in vacuo without hydrolysis, 25, 22, 50, 23.4; 30, 22.5, 2.50, 33, 0.5, distillation in vacuo without hydrolysis, -, -, 50, 38.8; 18.4, 20, 3.48, 33, 2, distillation in vacuo without hydrolysis, 27, 38, 32, 45.1. The data for the 1-step process are (mole ratio Me/Si, temperature, hrs., composition % III, IV, V in product, % yield given): 1.02, 50, 1, 20, 60, -, 31.1; 0.97, 34, 1, 40, 40, -, 37.5; 1.25, 34, 1, 13, 40, 25, 43.8. The products are isolated without hydrolysis of by-products. Isolation of III, IV, and V by hydrolysis of by-products followed by Et2O extraction gives low yields due to polycondensation.

IT **75-94-5P**, Silane, trichlorovinyl-
RL: **PREP (Preparation)**
(preparation of)

RN 75-94-5 HCAPLUS

CN Silane, trichloroethenyl- (CA INDEX NAME)



L78 ANSWER 33 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1954:10795 HCAPLUS Full-text

DOCUMENT NUMBER: 48:10795

ORIGINAL REFERENCE NO.: 48:1948c-f

TITLE: The preparation of organosilanes from dichlorosilane

AUTHOR(S): West, Robert; Rochow, Eugene G.

CORPORATE SOURCE: Harvard Univ.

SOURCE: Journal of Organic Chemistry (**1953**), 18, 303-8
CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

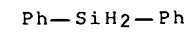
LANGUAGE: Unavailable

ED Entered STN: 22 Apr 2001

AB Cl2SiH2 (I) (0.25 mole) was bubbled into 0.50 mole RMgBr in 250 cc. Et2O under N at such a rate to allow gentle refluxing; the mixture was refluxed 30 min. on a steam bath, added to 100 cc. of chilled 10% aqueous HOAc, the H2O-washed organic layer dried over Na2SO4 and distilled The 4 dialkylsilanes (II) which were prepared have camphorlike odors. Both II and diarylsilanes (III) are stable in air, unreactive in H2O, hydrolyzed slowly by acids and rapidly by alkali, giving H and silicone polymers. The following R2SiH2 were prepared (R, b.p./mm., n25D, d25, and % yield given): Et, 56°/763, 1.3917, -, 40; Pr, 110.5°/769, 1.4049, -, 88; Me2CH, 98.5°/778, 1.4041, 0.7085, 60; Bu, 160°/773, 1.4221, 0.7429, 49; cyclohexyl, 140-1°/23, 1.4854, 0.8890, 79; Ph, 95-7°/13, 1.580, -, 77. Bubbling 0.20 mole I for 85 min. into 0.46 mole p-MeOC6H4MgBr, etc. gave 0.8 g. (p-MeOC6H4)2, m. 170-4°, precipitated from the Et2O solution; concentration of the Et2O solution at 150°/25 mm. for 30 min. gave 48% residual oil solidifying to (p-MeOC6H4)2SiH2, m. 57-8.5°. Similarly prepared in 67% yield, (1-C10H7)2SiH2 (IV) m. 206.5-7.5°, and, unlike (1-C10H7)3SiH, it is readily hydrolysed by alkali. Refluxing 0.033 mole IV in C6H6 with a slight excess of PhLi in Et2O for 5 hrs., addition to H2O etc. gave 67% (1-C10H7)2Ph2Si, m. 206.5-7.5° (cf. Gilman and Brannen, C.A. 45, 2921d). Dropwise addition of 0.10 mole Br in CHCl3 to 0.052 mole Pr2SiH2 at 0-10° and

refluxing 30 min. with a stream of dry N to remove HBr, gave 88% Pr2SiBr2, b763 204-5°, d25 1.387, fuming in moist air and rapidly hydrolyzed by H2O and alkali. Bu2SiH2 did not react with EtMgBr in PhMe in 16 hrs. at 100°. Infrared data of II and III showed strong absorption peaks at 4.77-4.80 and 4.72-4.77 μ resp.

IT **775-12-2P**, Silane, diphenyl-
RL: **PREP (Preparation)**
(preparation of)
RN 775-12-2 HCAPLUS
CN Benzene, 1,1'-silylenebis- (CA INDEX NAME)

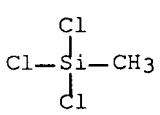


L78 ANSWER 34 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1950:43662 HCAPLUS
DOCUMENT NUMBER: 44:43662
ORIGINAL REFERENCE NO.: 44:8361f-h
TITLE: Esters of antimonous acid
INVENTOR(S): Rust, John B.; Spialter, Leonard
PATENT ASSIGNEE(S): Montclair Research Corp.; Ellis-Foster Co.
DOCUMENT TYPE: **Patent**
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2511013		19500613	US 1946-640132	19460109 <--

ED Entered STN: 22 Apr 2001
GI For diagram(s), see printed CA Issue.
AB Halo esters of antimonous acids are prepared by treating the antimonous halide with an epoxy compound The type reaction is: 3RCH.CH2.O + SbY3 → Sb(OCH2CHRY)3, where R may be H, alkyl, haloalkyl, hydroxyalkyl, alkenyl, or phenyl, and Y may be Cl or Br. The reaction may be carried out directly or in a solvent like PhMe, with cooling where necessary and with refluxing. The products may be used for preparing other Sb derivs. and the partial hydrolytic and condensation products may be used as protective coatings, adhesives, etc. Halosilanes, Si halides, and Ti halides may be caused to coreact to produce more complex compds.

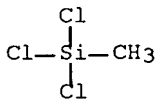
IT **75-79-6P**, Silane, trichloromethyl-
RL: **PREP (Preparation)**
(preparation of)
RN 75-79-6 HCAPLUS
CN Silane, trichloromethyl- (CA INDEX NAME)



L78 ANSWER 35 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1950:43663 HCAPLUS
DOCUMENT NUMBER: 44:43663
ORIGINAL REFERENCE NO.: 44:8361h
TITLE: Organic silicon compounds
PATENT ASSIGNEE(S): Mo och Domsjo Aktiebolag
DOCUMENT TYPE: **Patent**
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 638951		19500621	GB 1948-7111	19480308 <--

ED Entered STN: 22 Apr 2001
AB Grignard solns. and SiCl4 or partially alkylated Si halides are sprayed from concentric jets upon a rapidly rotating plate. The volatile substances vaporize rapidly from the resultant spray and can be fractionated and recycled if desired.
IT **75-79-6P**, Silane, trichloromethyl-
RL: **PREP (Preparation)**
(preparation of)
RN 75-79-6 HCAPLUS
CN Silane, trichloromethyl- (CA INDEX NAME)



L78 ANSWER 36 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1950:3199 HCAPLUS
DOCUMENT NUMBER: 44:3199
ORIGINAL REFERENCE NO.: 44:658h-i,659a-b
TITLE: Diorganomonochlorosilanes
INVENTOR(S): Barry, Arthur J.
PATENT ASSIGNEE(S): Dow Chemical Co.
DOCUMENT TYPE: **Patent**
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 622970		19490510	GB 1947-2542	19470127 <--

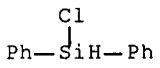
ED Entered STN: 22 Apr 2001
AB Substituted monochlorosilanes of the type RR'SiHCl, where R and R' are alkyl, aralkyl, or aryl radicals, are made from SiHCl3 (I) or RSiHCl2 and R'MgX (II), 1.0-2.2 mol. equivs. II/mol. I being used to minimize formation of monoorganodichlorosilanes and triorganosilanes. To I 478 and C6H6 1759 are added p-MeC6H4MgBr 1450 and ether 1682 g. at 0° during 2.25 h., the mixture stirred several hrs. more, MgX2 filtered, and the filtrate distilled Monochlorosilanes so made are: di-p-tolyl (yield 41%), b0.45-0.55 112-17°, d420 1.096, nD20 1.5701; di-Ph, b10 143°, d420 1.118, nD20 1.581; dibenzyl,

b0.4 102-10°, nD20 1.5721; Me Ph, b100 113°, d420 1.043, nD20 1.5157; Et Ph, b50 111°, nD20 1.5103; p-ClC6H4 (Me2CH), b30 134.0-4.75°, d420 1.115, nD20 1.5239; Et (PhCH2), b30 114-16.5°, d420 1.019, nD20 1.5130. These compds. are used to make fabrics water-repellent, and may be hydrolyzed to form silicones. Cf. C.A. 43, 3441f.

IT **1631-83-0P**, Silane, chlorodiphenyl-
RL: **PREP (Preparation)**
(preparation of)

RN 1631-83-0 HCAPLUS

CN Benzene, 1,1'-(chlorosilylene)bis- (CA INDEX NAME)



L78 ANSWER 37 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1950:43664 HCAPLUS

DOCUMENT NUMBER: 44:43664

ORIGINAL REFERENCE NO.: 44:8361h-i

TITLE: Aliphatic organo silicic halides

INVENTOR(S): Pirani, Roberto

PATENT ASSIGNEE(S): "Montecatini" Societa Generale per l'industria mineraria e chimica

DOCUMENT TYPE: **Patent**

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IT 440512		19481012	IT	<--

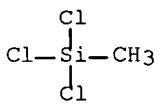
ED Entered STN: 22 Apr 2001

AB Gaseous aliphatic halides are allowed to react with a powdered Fe-Si-Cu alloy. Example: MeCl is brought into contact with a powdered Fe alloy containing 70% Si and 10% Cu, at 270°, while stirring; after 150 h., over 50% of the Si has reacted, giving 800 g. of reaction products (I) per kg. MeCl. I contain 55% Me2SiCl2 and 15% MeSiCl3.

IT **75-79-6P**, Silane, trichloromethyl-
RL: **PREP (Preparation)**
(preparation of)

RN 75-79-6 HCAPLUS

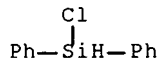
CN Silane, trichloromethyl- (CA INDEX NAME)



L78 ANSWER 38 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1948:17368 HCAPLUS Full-text

DOCUMENT NUMBER: 42:17368
ORIGINAL REFERENCE NO.: 42:3723g-h
TITLE: Alkyl, aryl, and alkoxy derivatives of silicon tetrachloride and silicochloroform
AUTHOR(S): Emeleus, H. J.; Robinson, S. R.
CORPORATE SOURCE: Univ. Cambridge, UK
SOURCE: Journal of the Chemical Society (**1947**) 1592-4
CODEN: JCSOA9; ISSN: 0368-1769
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
ED Entered STN: 22 Apr 2001
AB The following compds. were prepared by the action of Grignard reagents on HSiCl3: diethylchlorosilane, b10 65-5.3°; diphenylchlorosilane, b7 140-5°; benzyldichlorosilane, b2 48°; dibenzylchlorosilane, b1 146-8°. A new method of preparing alkylalkoxysilanes is the reaction of Na alkoxide and an alkylsilicon halide. Diethyldimethoxysilane, b. 130°, as well as several previously reported compds., were prepared by this method.
IT **1631-83-0P**, Silane, chlorodiphenyl-
RL: **PREP (Preparation)**
(preparation of)
RN 1631-83-0 HCAPLUS
CN Benzene, 1,1'-(chlorosilylene)bis- (CA INDEX NAME)



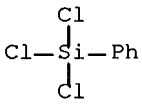
L78 ANSWER 39 OF 39 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1940:41114 HCAPLUS Full-text
DOCUMENT NUMBER: 34:41114
ORIGINAL REFERENCE NO.: 34:6242f-i,6243a-b
TITLE: Properties of silicoorganic compounds
AUTHOR(S): Koton, M. M.
SOURCE: Zhurnal Prikladnoi Khimii (Sankt-Peterburg, Russian Federation) (**1939**), 12, 1435-9(in French, 1439)
CODEN: ZPKHAB; ISSN: 0044-4618
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
ED Entered STN: 16 Dec 2001
AB The syntheses of silanols, silanediols and silanetriols were carried out by first preparing the Mg organic compound in absolute ether which was then admitted in drops to the ether solution of SiCl4. The chloride obtained was purified by distillation in vacuo, followed by decomposition with ice H2O acidified with H2SO4. The precipitate was removed by suction, extracted with ether (with the addition of C6H6), washed with H2O, dried over CaCl2 and the ether was finally removed on the water bath. Thus, Ph2Si(OH)2 yields glass-like polymers resistant to high temps. but fairly brittle when heat treated. (PhCH2)2Si(OH)2 under the same conditions does not yield a high-melting polymer. Ph3SiOH yielded under the above conditions very brittle films. PhSi(OH)3 was synthesized as follows: The Grignard apparatus was charged with 15 g. Mg shavings activated with I and 100 g. of PhBr and 400 g. absolute ether was then introduced by drops and under agitation to complete solution of the Mg. The resulting solution of PhMgBr was added in small portions to 100 g. SiCl4 in 100 ml. absolute ether with agitation and external cooling. The

precipitate of MgClBr was removed after cooling, the ether removed on the water bath and the residue containing mainly PhSiCl3, was decomposed with ice water acidified with H2SO4. The white precipitate was extracted with ether containing C6H6, washed neutral with pure water, dried over CaCl2 and the ether was finally removed on the water bath. The product (65% yield) was a glass-like solid mass. It was also prepared as follows: One part of Mg activated with I and 8 parts of PhBr in a sealed glass ampoule were heated in a thermostat for 4-6 hrs., while raising the temperature gradually from 140° to 165°. Into the ampoule containing a yellow mass was introduced ether (dried over CaCl2), the mixture was heated to dissolve PhMgBr and SiCl4 was then introduced. The yield of the final product was 32%. It softened at 80-95°, was insol. in water and soluble in C6H6. PhCH2Si(OH)3 and C10H7Si(OH)3 were prepared by the last method, the 1st yielding an elastic film (softening below 140°) after the addition of insulating varnish "Number 231" (characteristics not given), and the 2nd an elastic film which did not soften at 120° after a preliminary heating for 6 hrs. at 140°. These compds. are suitable as a dielec. material and insulating substance at elevated temps.

IT **98-13-5P**, Silane, trichlorophenyl-
RL: **PREP (Preparation)**
(preparation of)

RN 98-13-5 HCAPLUS

CN Benzene, (trichlorosilyl)- (CA INDEX NAME)



Search History

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L1            1 SEA ABB=ON  PLU=ON  WO2004-US43005/APPS

     FILE 'REGISTRY' ENTERED AT 17:18:25 ON 27 APR 2007
L2            1 SEA ABB=ON  PLU=ON  DIPHENYLSILANE/CN
                SEL RN
L3           82 SEA ABB=ON  PLU=ON  775-12-2/CRN

     FILE 'HCAPLUS' ENTERED AT 17:18:53 ON 27 APR 2007
L4           80 SEA ABB=ON  PLU=ON  L2(L)PREP/RL
L5           51 SEA ABB=ON  PLU=ON  L3(L)PREP/RL
L6         6103 SEA ABB=ON  PLU=ON  GRIGNARD REACTION/CT
L7            3 SEA ABB=ON  PLU=ON  (L4 OR L5) AND L6

     FILE 'REGISTRY' ENTERED AT 17:21:37 ON 27 APR 2007
L8            1 SEA ABB=ON  PLU=ON  DIPHENYLCHLOROSILANE/CN
L9            0 SEA ABB=ON  PLU=ON  1631-83-0/CRN

     FILE 'HCAPLUS' ENTERED AT 17:22:18 ON 27 APR 2007
L10          28 SEA ABB=ON  PLU=ON  L8(L)PREP/RL
L11           2 SEA ABB=ON  PLU=ON  L10 AND L6
L12         239 SEA ABB=ON  PLU=ON  L8
L13           3 SEA ABB=ON  PLU=ON  L12 AND L6
L14        1171 SEA ABB=ON  PLU=ON  (L2 OR L3)
L15           4 SEA ABB=ON  PLU=ON  L14 AND L6
L16           7 SEA ABB=ON  PLU=ON  (L7 OR L11 OR L13 OR L15)

     FILE 'CAPLUS' ENTERED AT 17:25:12 ON 27 APR 2007

     FILE 'REGISTRY' ENTERED AT 17:29:13 ON 27 APR 2007
L17           9 SEA ABB=ON  PLU=ON  75-79-6/RN OR 75-94-5/RN OR 98-13-5/RN OR
                100-59-4/RN OR 149-74-6/RN OR 80-10-4/RN OR  144-79-6/RN OR
                1631-84-1/RN OR  7719-02-0/RN
L18        1805 SEA ABB=ON  PLU=ON  (100-59-4/CRN OR 144-79-6/CRN OR 149-74-6/C
                RN OR 1631-84-1/CRN OR 75-79-6/CRN OR 75-94-5/CRN OR 7719-02-0/
                CRN OR 80-10-4/CRN OR 98-13-5/CRN)

     FILE 'HCAPLUS' ENTERED AT 17:29:43 ON 27 APR 2007
L19        1388 SEA ABB=ON  PLU=ON  L17(L)PREP/RL
L20        1538 SEA ABB=ON  PLU=ON  L18(L)PREP/RL
L21          22 SEA ABB=ON  PLU=ON  (L19 OR L20) AND L6
L22          29 SEA ABB=ON  PLU=ON  (L16 OR L21)
L23          16 SEA ABB=ON  PLU=ON  L22 AND P/DT
L24          16 SEA ABB=ON  PLU=ON  L23 AND (PY<=2004 OR AY<=2004 OR PRY<=2004)

L25          13 SEA ABB=ON  PLU=ON  L22 NOT L23
L26           3 SEA ABB=ON  PLU=ON  L13 AND PY<=2003
L27          18 SEA ABB=ON  PLU=ON  (L24 OR L26)
L28        1134 SEA ABB=ON  PLU=ON  NGUYEN B?/AU
L29           6 SEA ABB=ON  PLU=ON  BEDBURY C?/AU
L30           2 SEA ABB=ON  PLU=ON  HUMBURG R?/AU
L31         655 SEA ABB=ON  PLU=ON  JACOB S?/AU
L32          12 SEA ABB=ON  PLU=ON  RATCLIFF S?/AU
L33         108 SEA ABB=ON  PLU=ON  WATERMAN J?/AU
L34          17 SEA ABB=ON  PLU=ON  (L28 OR L29 OR L30 OR L31 OR L32 OR L33)
                AND (L17 OR L18 OR L2 OR L3 OR L8)
L35          12 SEA ABB=ON  PLU=ON  L34 AND P/DT
L36           9 SEA ABB=ON  PLU=ON  L35 AND (PY<=2004 OR AY<=2004 OR PRY<=2004)
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L37           5 SEA ABB=ON  PLU=ON  L34 NOT L35
L38           4 SEA ABB=ON  PLU=ON  L37 AND PY<=2004
L39          13 SEA ABB=ON  PLU=ON  (L36 OR L38)


     FILE 'WPIX' ENTERED AT 17:45:41 ON 27 APR 2007

     FILE 'REGISTRY' ENTERED AT 17:46:17 ON 27 APR 2007
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L40             SEL PLU=ON  L8 1- NAME :       3 TERMS
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L41          15 SEA ABB=ON  PLU=ON  L40
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L43             SEL PLU=ON  L17 1- NAME :      63 TERMS
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L44        2627 SEA ABB=ON  PLU=ON  L43
L45        2627 SEA ABB=ON  PLU=ON  L44 OR L17
L46        3925 SEA ABB=ON  PLU=ON  GRIGNARD/BI,ABEX
L47         609 SEA ABB=ON  PLU=ON  (L28 OR L29 OR L30 OR L31 OR L32 OR L33)
L48          10 SEA ABB=ON  PLU=ON  L47 AND L46
L49          44 SEA ABB=ON  PLU=ON  (L42 OR L45) AND L46
L50          42 SEA ABB=ON  PLU=ON  L49 AND (PY<=2004 OR AY<=2004 OR PRY<=2004)


     FILE 'REGISTRY' ENTERED AT 17:53:12 ON 27 APR 2007
L51           1 SEA ABB=ON  PLU=ON  100-59-4/RN
                SEL RN
L52           2 SEA ABB=ON  PLU=ON  100-59-4/CRN
L53           8 SEA ABB=ON  PLU=ON  75-79-6/RN OR 75-94-5/RN OR 98-13-5/RN OR
                149-74-6/RN OR 80-10-4/RN OR  144-79-6/RN OR   1631-84-1/RN OR
                 7719-02-0/RN
L54        1803 SEA ABB=ON  PLU=ON  (144-79-6/CRN OR 149-74-6/CRN OR 1631-84-1/
                CRN OR 75-79-6/CRN OR 75-94-5/CRN OR 7719-02-0/CRN OR 80-10-4/C
                RN OR 98-13-5/CRN)

     FILE 'HCAPLUS' ENTERED AT 17:56:41 ON 27 APR 2007
L55        1329 SEA ABB=ON  PLU=ON  L53(L)PREP/RL
L56        1536 SEA ABB=ON  PLU=ON  L54(L)PREP/RL
L57         828 SEA ABB=ON  PLU=ON  (L51 OR L52)
L58          23 SEA ABB=ON  PLU=ON  (L55 OR L56) AND (L57 OR L6)
L59          30 SEA ABB=ON  PLU=ON  (L16 OR L58)
L60          17 SEA ABB=ON  PLU=ON  L59 AND P/DT
L61          16 SEA ABB=ON  PLU=ON  L60 AND (PY<=2004 OR AY<=2004 OR PRY<=2004)

L62          13 SEA ABB=ON  PLU=ON  L59 NOT L60
L63          12 SEA ABB=ON  PLU=ON  L62 AND PY<=2004
L64          28 SEA ABB=ON  PLU=ON  (L61 OR L63)

     FILE 'WPIX' ENTERED AT 18:00:48 ON 27 APR 2007

     FILE 'REGISTRY' ENTERED AT 18:01:08 ON 27 APR 2007
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L65             SEL PLU=ON  L53 1- NAME :      61 TERMS
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     FILE 'WPIX' ENTERED AT 18:01:09 ON 27 APR 2007
L66         2588 SEA ABB=ON  PLU=ON  L65
L67         2588 SEA ABB=ON  PLU=ON  L66 OR L53

     FILE 'REGISTRY' ENTERED AT 18:01:49 ON 27 APR 2007
                SET SMARTSELECT ON
L68             SEL PLU=ON  L54 1- NAME :     709 TERMS
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     FILE 'WPIX' ENTERED AT 18:04:07 ON 27 APR 2007

     FILE 'REGISTRY' ENTERED AT 18:12:40 ON 27 APR 2007
                SET SMARTSELECT ON
L69             SEL PLU=ON  L51 1- NAME :       2 TERMS
                SET SMARTSELECT OFF

     FILE 'WPIX' ENTERED AT 18:12:41 ON 27 APR 2007
L70           41 SEA ABB=ON  PLU=ON  L69
L71           41 SEA ABB=ON  PLU=ON  L70 OR L51
L72           24 SEA ABB=ON  PLU=ON  L67 AND (L71 OR L46)
L73           23 SEA ABB=ON  PLU=ON  L72 AND (PY<=2004 OR AY<=2004 OR PRY<=2004)

     FILE 'WPIX, HCAPLUS' ENTERED AT 18:15:15 ON 27 APR 2007
L74           18 DUP REM L48 L39 (5 DUPLICATES REMOVED)

     FILE 'WPIX, HCAPLUS' ENTERED AT 18:18:29 ON 27 APR 2007
L75           18 DUP REM L48 L39 (5 DUPLICATES REMOVED)

     FILE 'HCAPLUS' ENTERED AT 18:19:22 ON 27 APR 2007
L76           23 SEA ABB=ON  PLU=ON  L64 NOT L39

L77           18 SEA ABB=ON  PLU=ON  L73 NOT L48

     FILE 'WPIX, HCAPLUS' ENTERED AT 18:20:12 ON 27 APR 2007
L78           39 DUP REM L77 L76 (2 DUPLICATES REMOVED)

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